GENERAL WORKS
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1938

From International Numismatic Congress

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INTERNATIONAL NUMISMATIC CONGRESS

LONDON

JUNE 30—JULY 3, 1936

TRANSACTIONS OF THE INTERNATIONAL NUMISMATIC CONGRESS

ORGANIZED AND HELD IN LONDON
BY THE
ROYAL NUMISMATIC SOCIETY
JUNE 30 — JULY 3, 1936
ON THE OCCASION OF ITS
CENTENARY

EDITED BY
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LONDON
BERNARD QUARITCH LTD., 11 GRAFTON STREET, W. 1
1938

PRINTED IN GREAT BRITAIN

PREFACE

THIS volume comprises the papers read to the International Congress of Numismatists, held in London, June 30–July 3, 1936. Of the papers read, several for various reasons are appearing elsewhere: synopses of these are given in the proper places. Some few papers did not figure in the printed programmes, but were introduced at the last minute, while one or two do not appear because they were only parts of a whole on which their authors are still working. A preliminary report of the Congress was published in the *Proceedings of the Royal Numismatic Society*, 1935–6, pp. 34–55.

The papers are arranged in the first place in their sections and, in the second, alphabetically in their sections.

On the instructions of the Council of the Royal Numismatic Society, the task of editing the Transactions has been undertaken by the Editors of the *Numismatic Chronicle*.

The Editors desire to express their thanks to the British Academy for the loan of blocks for Plates I–III.

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SECTION I

GREEK

FIFTY YEARS OF GREEK NUMISMATICS

SIR GEORGE MACDONALD

WHEN I was honoured with the invitation to preside over this Congress, I had some difficulty in making up my mind as to the form which an Introductory Address could appropriately take, so multifarious are the topics to be discussed. At the critical juncture Sir George Hill, with his usual resourcefulness, kindly came to my rescue by suggesting the title which I have actually adopted. He believed that a survey of recent progress and tendencies in the department of Numismatics with which he and I have been most closely associated might not be without interest even for those who are working in other fields. It was only after the proposed title had been intimated to the Committee that I realized, somewhat to my dismay, that it was capable of being interpreted in an autobiographical sense. By an odd coincidence it is exactly fifty years since Evelyn Abbott, my history tutor at Oxford, recommended me to turn to Gardner's *Types of Greek Coins* if I wished to learn something that was not to be found in any of the ordinary text-books. That was my first introduction to a subject which has maintained its hold upon me ever since.

Do not, however, be alarmed. I have no intention of leading you down the primrose path of reminiscence. On the other hand, the time at my disposal does not permit of my attempting to present you with an articulated historical sketch. All I can offer you is a set of random, although not entirely disconnected, reflections. If they appear to you to be commonplace, I will admit at once that the criticism is unanswerable. Nevertheless, it may be just worth while bringing them together. In the circumstances I shall seldom have occasion to refer to individuals, for I shall be concerned mainly with movements. Much as I should like to give honour in every case where honour is due, I shall over and over again be compelled to withhold payment of a personal tribute that under different conditions it would have been a privilege to offer. During the greater part of the last half-century I have been in friendly contact with practically all of my fellow-workers at home and abroad. It is pleasant to think that quite a number of them are still in the full vigour of their powers. But, on the threshold of a retrospect, one is inevitably reminded of the many who have passed away.

Two of these I must mention by name, not so much because they

stand out conspicuously on the canvas of my own memory, as because of the far-reaching influence they exerted. Their stature was such that future generations are likely to extend to them very much the same sort of veneration as we accord to Eckhel. Barclay Vincent Head, kindliest and gentlest of scholars, was a richly gifted numismatist with a rare instinct for style and a firm grasp of historical method. Of his *Historia Numorum* I will speak presently. Here I would merely ask you to admire the splendid courage with which he faced the task of compiling a synthesis so comprehensive, resolutely determined to be constructive even at the risk of being occasionally proved wrong. Friedrich Imhoof-Blumer's claims to our gratitude are different in character. He had the same *flair* for style, coupled with singularly acute powers of observation and an amazingly wide and intimate acquaintance with the coinages of every part of the Greek world. During his lifetime he was rightly regarded as *il maestro di color chi sanno.* It was to him that his contemporaries all over Europe were wont to turn if they despaired of solving a difficulty at their own hand. Nor was he often appealed to in vain. Although he left no *opus magnum* as a monument, there was hardly a region into which he did not bring illumination in one or other of the numerous papers which he published. Nothing that he wrote can be safely neglected. As a rule, it represents the last word on the group of coins with which it deals.

By 1886, the year that forms my starting-point, Head and Imhoof were well on the way to the position of pre-eminence they were to occupy for so long. But it is not to be supposed that they were alone. America, it is true, was still 'mewing her mighty youth'. Most of the great public collections in this country and on the Continent, however, had upon their staffs men who were thoroughly capable of turning to the best account the treasures under their care. In other respects, too, the omens were favourable for the opening of a new era. The autotype process of reproduction had been perfected, and its superiority was now universally acknowledged. In the *Numismatic Chronicle* it had been first used in 1874, but on that occasion for only a few of the plates. Abroad it had been employed a year or two earlier by Imhoof, all of whose subsequent publications are notable for the consistently high quality of the illustrative plates, a feature due in no small measure to the fact that he could and did supervise their printing himself. Again, the British Museum had shown an example to other institutions by launching a scheme for the issue of a complete catalogue of its Greek coins, a vast undertaking which had been inaugurated in 1873 by Poole, Head, and

Gardner, and which was progressing so satisfactorily that eight volumes had already appeared. A glance at these volumes shows how much profit Greek numismatics had derived from the attention that had been devoted to the study of Greek art generally. As Professor Ashmole will remind you on Friday, die-engraving is but a part of a much larger whole, whose history and development have been traced with virtual certainty. By 1886 there was universal agreement that stylistic considerations form a trustworthy basis for the chronological classification of any extensive series of Greek coins, while at the same time they enable isolated specimens to be dated within fairly narrow limits.

What gave the *Historia Numorum* a value that was destined to be enduring was the successful application of this fundamental principle over an unprecedentedly large area. Detailed studies of particular groups had been made before. Head's own *Coinage of Syracuse* is a classic example. But here was, in the author's own words, 'a practical handbook in a single portable volume containing in a condensed form a sketch of the numismatic history of nearly every city, king, or dynast, known to have struck coins throughout the length and breadth of the ancient world'. The description is quoted from the Preface, which is dated 'September, 1886', or, as nearly as may be, fifty years ago. When the book appeared, its effect was immediate. To students of ancient history it opened up a new view of what coins had to teach: witness the appendix to the concluding volume of Adolf Holm's *Geschichte Siciliens*. To specialists it served as a clue by the help of which they could thread their way through a labyrinth of multifarious issues at a minimum cost of time and trouble. What it meant to beginners I can perhaps testify better than most, for it is no exaggeration to confess that without it the compilation of the Hunter Catalogue could never have been undertaken.

I do not think that it is altogether fanciful to see a direct connexion between the appearance of the *Historia* and the outburst of numismatic activity that ensued a year or two later. No doubt the impetus given by the British Museum Catalogue was also a factor. Berlin must already have had it in mind to emulate the example set by London, for the first instalment of a catalogue of the Greek coins in the Royal Collections there was published as early as 1888. A second followed in 1889, and a third in 1894. At that point—that is, when Italy had been little more than well begun—the series was abruptly broken off, and it has never been resumed. Meanwhile, Paris had fallen into line with London and Berlin, a most promising start being made in 1890 with Babelon's *Rois de Syrie*. Three years

later there came from the same pen a sequel, comprising the coins struck by the Persian kings and by their satraps and tributary dynasts. That was more than a generation ago, and since then there has been nothing. The record of Vienna is more meagre still, including as it does only a single booklet, which dates from 1893 and covers the district from Thessaly to Epirus. In so far as the premature end of these three enterprises was due to a realization of the immense difficulties that had to be overcome, their break-down may well enhance our respect for the achievement of our own Medal Room, which has now as many as thirty volumes to its credit. Since 1927 there has been a halt. Let us hope that it may prove to be but temporary, for it may be affirmed without fear of contradiction that each of, at all events, the later volumes has marked an epoch in the study of the mintage of the district to which it is devoted.

But, if I were to leave matters there, I should be doing less than justice to others. It is fair to assume that a main reason for the abandonment of the Berlin Catalogue was the approaching shadow of the eclipse that was threatened by the preparations that were then actively afoot for the production of a complete *corpus* of all Greek coins. It was Mommsen who first suggested that this would form a fitting companion to the monumental *Corpus Inscriptionum*, the organization of which is likely to be the most lasting of his many titles to fame. That was, I think, in 1886. The Berlin Academy of Sciences agreed to accept the same responsibility for the new undertaking as they had done for the old one, and Imhoof consented to act as editor-in-chief. A band of competent young numismatists was selected and entrusted with the task of visiting museums and private collections everywhere, in order to gather material for the particular regions which they had been commissioned to explore. They set to work with an energy and devotion that are beyond all praise, and for ten or fifteen years there seemed to be no doubt but that the scheme would eventually be carried to a triumphant conclusion. Quite possibly the stoppage at Vienna was due to the same cause—a conviction that it would be a waste of time and money to print descriptions which would so soon be superseded. Something of the same sort certainly happened in Paris. No sooner had Babelon brought out the second volume of the Bibliothèque Nationale Catalogue than he had to turn aside to compile an inventory of Waddington's famous cabinet of Greek coins from Asia Minor, now a national possession. This finished, he set himself to write an encyclopaedic *Traité*, which was to include both Greek and Roman coins from the earliest period to the fall of the Empire and which, while

not so all-embracing as the Berlin *Corpus*, was nevertheless to be far fuller and more detailed than the *Historia Numorum*.

It will be seen that before the close of the nineteenth century continental numismatists had exchanged the museum catalogue for the *corpus* as the ideal at which they should aim. In the interval experience has taught us all that the ideal is unattainable. To the hundreds of thousands of ancient coins already known, fresh discoveries are yearly adding thousands more. But even without that complication the difficulty of handling the huge mass of separate pieces has proved to be insuperable. Although at first all seemed to go well with the Berlin project, it began to make heavy weather as soon as the critical point was reached. The first part of volume i (Dacia and Moesia), edited by Pick, was published in 1898, and the first section of the second part in 1910, Regling's name now figuring on the title-page along with that of Pick. The first part of volume ii (Thrace) followed in 1912, with Münzer and Strack as editors, and the first part of an unnumbered volume, which was to be devoted to Mysia, in 1913 under von Fritze's care. Meanwhile, the first part of volume iii (Macedonia and Paeonia) by Gaebler had appeared in 1906, to be completed by the issue of the second part in 1935, just twenty-nine years later. In the preface to the last of these it is frankly admitted that the lines originally laid down had been much too ambitious, if I may use that term without any disparaging implication, and in the text they are quite frankly abandoned. In spite of all the labour expended in laying the foundations, the structure has collapsed under its own weight. Strack had foreseen the danger more than twenty years earlier, and had deliberately dispensed with many of the refinements by which his predecessors had striven to reach perfection. Whether we may look for further instalments is, I fear, more than doubtful. But it is much to be hoped that the Academy may see its way to give us anything that is in a state at all approaching readiness for press.

Babelon's *tâche lourde et de longue haleine* has fared no better. The first volume was published in 1901. Others, finely illustrated, followed at intervals until his death some twenty-two years afterwards. Two have appeared posthumously, the last in 1933. Even so, the work seems likely to remain a torso, with Greece unfinished and Rome not even begun. Moreover, it is only too probable that a like fate awaits the *Recueil général des monnaies grecques d'Asie Mineure*, a *corpus* of the coins of Asia Minor, originally begun by Waddington and subsequently continued by Babelon and Théodore Reinach. It goes without saying that both of these undertakings, like the Berlin

Academy's enterprise and, indeed, like every other manifestation of intellectual activity in Europe, suffered grievously from the outbreak and the consequences of the Great War. But, in the case of the Berlin *Corpus* at all events, the ultimate result could hardly have been different, even had there been no war. *Die antiken Münzen Nordgriechenlands* was a splendid experiment, and no numismatist can feel otherwise than grateful to the Academy and to the editors for their heroic struggle to accomplish the impossible. Both in themselves and for the lessons in method which they convey, the volumes which have seen the light, fragmentary as they are, are most valuable, especially when taken in conjunction with the numerous preliminary studies that were published in *Nomisma* and elsewhere.

But, of all the lessons they have to teach, the most important is also the most obvious. We must resign ourselves to a policy of limiting our objectives either in space or in time. Catalogues of museum and other collections will always be useful in the way of providing material. The more of them we can have, the better. For the rest, our science has reached a stage when the best hope of increasing knowledge lies in intensive study, and intensive study implies concentration of one kind or another. The truth of that will, I am sure, be apparent if you look back for yourselves at the astonishing amount of work—much of it first-rate—which has been produced in various countries since 1886. I will not attempt to particularize. It would take me too long to do so, and, besides, the task of selection would be invidious. The short time at my disposal will be better spent in reminding you of some of the improvements in the technique of research which have been effected in the half-century we are considering. None of them, perhaps, is altogether novel, but during the last fifty years we have learned to use them in ways that were previously undreamt of. One instrument has indeed broken short in our hands, and it may be desirable to refer to that first.

In the preface to the *Historia Numorum* Head expressed the opinion that the labours of Boeckh and Mommsen, Brandis and Hultsch, to cite only the most eminent names, had 'placed the science of ancient metrology at last on a firm footing'. He added: 'It can no longer be maintained that this branch of our subject is shrouded in "Cimmerian darkness"; the night has at last broken and we are beginning to see well enough to feel our way.' I should hesitate to affirm that any real progress has been made since these words were written. The mantle of the nineteenth-century metrologists fell upon Lehmann-Haupt, who found an enthusiastic ally in Haeberlin. I have a vivid recollection of a summer evening in 1909 spent under

the hospitable roof of the genial Frankfurt *Justizrat*. Surrounded by his incomparable collection of Aes Grave, we sat until the stars came out, he expounding his views upon *metrologische Grundlagen* with all the fervour of passionate conviction, hurrying me through Babylonia and Egypt and Greece and Etruria at a speed which left me no part to play but that of 'panting Time' in the poem. Such theorizing provoked the inevitable reaction. When it came, it was headed by Otto Viedebantt, whose merciless criticism was summed up in the assertion that the doctrines of the older school were no better than the emanations of a *Hexenküche*.

Since the publication of Viedebantt's *Antike Gewichtsnormen und Münzfüße* in 1923, there has been a lull. Numismatists have recognized that, so far as they are concerned, the questions round which the controversy mainly raged are of little practical importance. Certain of the standards on which ancient coins were struck—the Euboic-Attic, the Aeginetic, the Phoenician, and so forth—are not in dispute, and there is little more to be said about them than is said in the *Historia*. To interpret the meaning of the many variations, which Head evidently anticipated that we should one day be able to do, seems hopeless. To begin with, coins that clearly belong to one and the same series, even coins struck from the same die, are often far from being uniform in weight. In such cases what are we to reckon as the norm? It cannot be the heaviest, because there is not seldom a considerable gap between it and the lightest, even when the latter is in a good state of preservation. Nor is the average of any assemblage of specimens, however large, a trustworthy guide, since the presence of one or two exceptional pieces at either end of the scale may render it wholly misleading. Everything taken together, the most satisfactory test is what has been called the 'table of frequency', a device originally suggested by Babelon and afterwards perfected by Hill and Robinson. This assumes the norm to be the figure to which the weights of the largest number of all known examples approximate most closely. It is not pretended that the result so obtained is mathematically accurate, and in the nature of things there is no reason why it should be. It is plain that at most Greek mints the weighing of the blanks was carried out in rather a rough-and-ready manner.

It almost looks as if the workmen were instructed, not to strike coins each of which should be of a specified weight, but rather to produce from a given lump of bullion a specified number of coins which should be more or less of the same size. Discrepancies in the output would be of less moment than might be supposed, because

there are good grounds for believing that recourse was often had to the balance in private transactions. To the modern student, however, this indifference of the official mind to scrupulous exactness of weight is a serious embarrassment. It is an unmistakable warning against the too strict application of our own canons to the problems of ancient metrology. The truth is that we know too little of the everyday trading-habits of the Greeks to dogmatize about them. By way of illustration I may be allowed to refer to a survey of the silver coinage of Crete carried out by myself in 1919. This disclosed the remarkable fact that two (or even three) different standards were sometimes in use simultaneously at one and the same city. It had, of course, long been known that such a practice prevailed elsewhere. Under the later Seleucid kings, for instance, some of the great Syrian mints, to meet the needs of different commercial communities, struck two parallel sets of tetradrachms, one of which followed the Attic system and the other the Phoenician. There, however, all risk of confusion was obviated by using characteristic obverse and reverse types in order to mark the distinction. The surprising thing was that in Crete so simple a precaution was sometimes neglected. Robinson, who noted an analogous phenomenon in Cyrene, has pointed out that the more highly developed instinct of the Greek trader would enable him to surmount the difficulty of drawing a distinction with an ease that it is hard for us to appreciate.

The general conclusion suggested is that, until many more facts have been ascertained and their significance determined, metrology is not likely to give us much more help than it has already done. The prospect of making headway through the study of hoards is very much brighter. De Salis and Mommsen were thoroughly alive to the importance of such study for the chronological classification of Roman coins. Its application to Greek coins came later. One of the earlier examples is the successful use made of it by Sir Arthur Evans in his brilliant treatise on *The Horsemen of Tarentum*, published in 1889. During recent years its value has been insisted upon with steadily increasing emphasis, especially by numismatists on the other side of the Atlantic. Statistical proof of that is furnished by the publications of the American Numismatic Society. I find that of the seventy 'Numismatic Notes and Monographs', issued with its *imprimatur* since 1920, no fewer than twenty-one deal with hoards, the hoards being usually Greek. One of the most useful of these monographs is Noe's *Bibliography*, compiled in 1925. To turn over its pages, however, awakens vain regrets, for it shows how much has been lost by imperfect recording. If a hoard is to yield the full

measure of the information it is capable of giving, the inventory must be complete—too often, alas, a counsel of perfection, since hoards are apt to be broken up and dispersed before any news of their discovery can reach the ear of a qualified expert. But, whether complete or incomplete, the inventory should be far more detailed than was at one time deemed sufficient. Mere summary lists are of little service. Each specimen should be carefully described and its condition noted, as in the numerous accounts by Newell, which are models of their kind.

But how and in what directions may properly recorded hoards be expected to assist us? I set aside the light they may throw on economic history by revealing the track of ancient trade-routes, as the hoards of Massalian coins have done under M. Blanchet's guidance. Summaries would suffice for that. It is of purely numismatic information I am thinking, and here there are various categories. In the first place, the *locus* of the discovery may confirm the attribution of a particular set of coins to its proper mint. That is perhaps rather exceptional. But a familiar instance is the hoard which was the means of re-transferring from Allaria in Crete to Lacedaemon the tetradrachms with ΛΑ and the seated Herakles. Again, as Newell has conclusively demonstrated, it is upon a thorough examination of hoards that we shall ultimately have to depend for a trustworthy classification of the vast silver coinage with the head of Alexander the Great. By a fortunate chance he was able to study nearly 5,000 tetradrachms unearthed at Demanhur in 1905, in all likelihood practically the whole of the deposit. The inferences he drew constitute the most enlightening contribution ever made to our knowledge of Alexander's own issues. The treasure was hidden *circa* 318 B.C. and, as might have been anticipated from its size, it was fully representative, including specimens of virtually all the varieties struck during the king's lifetime, wherever they had been minted. Naturally it is only now and then that hoards of such magnitude are brought to light. Far smaller ones, however, may play their part in unravelling problems of chronology. But, if they are to do so, it is essential that every detail of their composition should be accurately registered and adequately published, so that comparison with other data may be facilitated.

I remarked a moment ago that there is occasionally something to be learned from the provenance of hoards. The discovery of isolated specimens is of far more frequent occurrence, and their provenance may be equally instructive—particularly the provenance of small bronze pieces, which seldom travelled very far. That is,

where they do not bear the name of any identifiable mint—and equally, of course, where they bear the name of a mint whose site has been forgotten—the region in which they are found shows us where their place of origin ought to be looked for. This obvious principle has been applied for so long, and applied to such good purpose, that it would be superfluous to cite examples. I would merely remind you that Imhoof used it over and over again as a numismatist, while it has been constantly employed by geographers like Waddington and Ramsay in Asia Minor. But the present generation has witnessed a further development. Within living memory the systematic excavation of the sites of famous cities has become more and more prominent as a feature of archaeological activity, the United States being in the forefront here, thanks to the enlightened liberality of her wealthy corporations. In all such ventures the testimony of the coins is considered to be of the highest importance. They are identified and described as precisely as may be, and the circumstances and exact place of each discovery noted. If they are at all numerous, they are published in a separate volume. The primary object is in this instance not numismatic, but historical: the stratification of the coins is invaluable for the establishment of the sequence of occupations. Yet the numismatist can never afford to ignore these lists. There are occasions on which he may have the satisfaction of finding the debt repaid with interest.

From the circumstances in which coins may be discovered I turn to what can be done with them when they reach the hands of a trained observer. Nothing would surprise our predecessors more than to be told that we have actually found our way back into the workshops of the issuing mints. With the older numismatists and collectors it was almost an article of faith that no two ancient coins were exactly alike, that every surviving specimen represented a pair of different dies. I do not know when the erroneous character of this view first came to be realized, but the study of dies is now one of the most useful instruments which the numismatist has at his command. Imhoof was the first to direct attention to its possibilities. As long ago as 1878, in a paper on the coins of Acarnania, he pointed out that certain Pegasos-staters, which had previously been attributed to Cleonae, Epidamnus, Lysimachia, and Naupactus on the strength of three or four letters that appeared upon the obverse, had all been struck from the same reverse die and must therefore have come from one and the same mint. The mint was, in point of fact, Anactorium, and the letters represented, not the names of cities, but the names of magistrates.

To-day we accept Imhoof's demonstration of this as a very ordinary incident, but it was really a notable landmark in the history of numismatics, accompanied as it was by an intimation that he had been able to reach similar results in other districts. Nine years later, or almost exactly at the beginning of our half-century, he published a number of these in a second paper, the principal regions concerned this time being Magna Graecia, Sicily, and Crete. Thenceforward the position of die-study was firmly assured. Its founder's prediction as to the secrets it might be expected to unlock has been more than amply fulfilled. I may be permitted to remind you of one typical instance, perhaps the most signal of all. When Newell had finished his comparison of the tetradrachms of Alexander the Great in the Egyptian hoard of which I have spoken, the whole elaborate structure of attributions built up in 1855 by Ludwig Müller had collapsed in ruin. Its keystone had been the idea that the monograms on the reverses were to be interpreted as indicating the issuing mints. Newell's scrutiny revealed the damning fact that tetradrachms which Müller had assigned to mints hundreds of miles apart, had actually been struck from the same obverse die. But his work was far from being merely destructive. It has provided a secure basis for a fresh and unassailable rearrangement. It is tempting to add a reference to Seltman's reconstruction of the temple coinage of Olympia, but I must refrain. The study of dies serves other purposes than that of geographical attribution, and one or two of these call imperatively for notice.

Thus—and it is again to Imhoof that we are indebted for the observation—it sometimes acts as a check upon chronological as well as upon geographical classification. Coins which at first sight leave the impression of belonging to quite different periods may nevertheless be proved to be contemporaneous by the use of the same die for one or other of the two sides. That does not happen very often and, even although it does happen sometimes, it should not be allowed to impair our sense of the value of style as by far and away the most reliable criterion for determining the age of any particular piece. All that it implies is that there are modifying circumstances of which account may have to be taken. Deliberate imitation of the archaic, such as was long practised at the mints of Athens, is one example. Another is the varying skill of die-engravers. In Crete, to take but a single instance, series which are headed by coins of quite irreproachable style are apt to degenerate more or less rapidly into something not far removed from barbarism. The only admissible explanation is that at the outset the dies were either imported from

abroad or executed by craftsmen of first-rate ability, who had visited the city for the purpose, and that, as the originals wore out, they were replaced by inferior copies of home manufacture.

Moreover, at the best, a classification by style can hardly take us beyond a grouping into periods, whereas die-study may carry us a stage further and enable us to determine sequences within the periods with certainty and precision. Dies did not last for ever. Indeed, it is not unlikely that they degenerated fairly rapidly owing to the softness of the metal in which they were cut. Signs of progressive deterioration, such as gradual wear and the emergence of cracks, would all be faithfully reflected on the blanks when the hammer descended. In other words, each die would write its own life-history on the face of the coins that were struck from it. If, therefore, a sufficient number of examples linked by identity of die can be got together, whether in the form of originals or of casts or of autotype illustrations, it may eventually be found that they can be arranged in the exact order of their striking. The presence of a sufficient number of examples of a coin is, I ought to have said before, an essential condition of fruitful die-study, and, indeed, of a recognition of the fact that identities of die exist at all. It was his diligence in collecting material, and not a mere happy inspiration, that led Imhoof to the conclusion that has had consequences so far reaching. Similarly, it was because of the accumulation in their hands of unprecedented masses of material for comparison that the staff of the Berlin *Corpus* were able to apply his methods with such remarkable success.

I can point to no better illustration of that success than Gaebler's masterly handling of the coinage of Macedonia in Imperial times. His minute analysis of the dies elucidated many points of detail, and at the same time gave us a glimpse into the organization of the whole business of minting. After what I said as to the break-down of the *Corpus*, it is right to admit that his results fully justified in principle the lines on which he and his colleagues had decided to proceed. It was not any fault of principle that led to the shipwreck of the enterprise as originally designed; it was the sheer impossibility of putting the principle into practice over any considerable area, so endless were the avenues it opened up for inquiry. At the same time the experience thus gained greatly increased the confidence that was coming to be felt in die-study, and brought about a much more general understanding of its usefulness. I have already indicated how it can be turned to account for the precise determination of sequences within given periods. If I recollect aright, the first

systematic attempt to put the idea into practice was made in 1906 by Regling. He was then engaged on Northern Greece for the *Corpus*, but he preferred to select for his purpose a homogeneous series from Italy. Taking the exquisitely beautiful silver coins of Terina, which range in date from about 480 to about 356 B.C., he endeavoured to marshal them in chronological order by the linking of identical dies and a close observation of the 'state' of each die at the moment of striking. His monograph has been the precursor of not a few similar efforts, and it is certain that we shall see many more of them in future.

There are other aspects of die-study in which the question of identity is of less moment. Thus, Evans used it to help him in calculating the total number of Demarateia that had been minted at Syracuse in 480 to celebrate the victory over the Carthaginians at Hinera. Again, erasures and additions made upon a die during its lifetime provoke curiosity as to their significance; presumably they are, as a rule, of local importance only, but sometimes they may have a wider meaning which it is worth while trying to discover. Lastly, there is an aspect into which identity does not enter at all. If a coin be held by the edges between finger and thumb and then turned round in such a way that obverse and reverse become visible in succession, it is easy to see at a glance the relative positions occupied by the two dies during the process of striking. Modern coins display a regularity which indicates mechanical adjustment. Ancient coins show much more variation. In the case of those that are early, caprice reigns supreme. Regularity supervenes later, but makes its appearance in different regions at different times. The evidence, therefore, points clearly to the invention of some mechanical device, the use of which spread more or less gradually, and the presence or absence of irregularity may in certain cases be of substantial assistance towards a right classification, geographically as well as chronologically. Since 1906, when the results of a preliminary investigation were published in *Corolla Numismatica*, scientific catalogues have always found room for a record of die-positions.

And now little remains for me to do except to thank you for the patience with which you listened to me, and to apologize for the imperfections of my survey. In spite of these, it may have been full enough to convey some idea of the advance that has been made in the years that have passed since 1886. Notwithstanding the calamity of 1914, even the last quarter of a century has seen great additions to our knowledge, as the editor of the third edition of the *Historia Numorum* will find to his cost when he addresses himself

to his task. Further, there is no sign of any pause immediately ahead. The process seems destined to continue at an accelerating pace. That the same is true of other branches of numismatics I have every reason to believe, and I am sure that it will be proved by the papers read at the Congress. But it is only of Greek numismatics that I have any title to speak. In that sphere at least it may be confidently asserted that those who have been bearing the burden and heat of the day, to whatever country they may belong, are well entitled to comfort themselves with the reflection that in their own generation they have done something to make the fascinating work of rediscovering antiquity a little easier for those who are to come after them.

THE RELATION BETWEEN COINS AND SCULPTURE

PROFESSOR BERNARD ASHMOLE

(*Plates I–III*)

IN the early stage of scientific numismatics, scholars did not lose sight of the fact that the art displayed in die-engraving is one with the art displayed in stone and marble sculpture, in bronze statuary, and in terra-cottas. The method of production differs, that is all. In short, the word *Kleinkunst*, for all its convenience, is false in its implications. Curiously enough, as knowledge has increased, method has deteriorated: the various manifestations of a single spirit seem to have slipped, as it were, into separate compartments of knowledge; comparisons have only once or twice been attempted, and then in a somewhat hesitating fashion. Generally, those who have made them —for example, Langlotz in his excellent attempt to synchronize late archaic vases and sculpture[1]—tend to use a very limited part of the numismatic evidence, a coin or two taken arbitrarily from this or that city, for comparison with sculpture of different origin; and consequently the conclusions reached are not so decisive as they might otherwise have been.[2] Moreover, a comprehensive study—a conspectus of all the surviving sculpture and of as many as possible of the coins—has a value which anything less complete lacks. Students of sculpture have—in their minds, perhaps, rather than on paper—a rough chronological arrangement of all the sculptures they know: for a few pieces they could maintain the date under cross-examination, for most they would not maintain any dating closer than a decade, while others are less certain still. Much the same is true of the numismatist, though the evidence he uses for dating is of rather a different nature. These chronological schemes, which depend largely on the survey of the sculptures as a whole and of the coins as a whole, are, then, slightly elastic in details; but the main framework in each is fairly rigid and generally recognized as sound. Now, can these two chronological schemes, the one of which would be accepted by the majority of students of sculpture, the other by the majority

[1] *Zur Zeitbestimmung der strengrotfigurigen Vasenmalerei und der gleichzeitigen Plastik*. Leipzig, 1920.

[2] An honourable exception is Mr. Seltman, who in his book on the coinage of Athens cited many pieces of sculpture. If I do not always agree with his conclusions, it is safe to say that he probably does not agree with them all himself by now: that does not detract from the soundness of his idea.

of numismatists, be collated with each other? The answer to that is that no one knows, because no one has ever tried to collate them.[1]

I have omitted for the moment a third valuable source of evidence, also with its own tolerably well-agreed scheme of chronology—especially valuable for Athens in the archaic period—namely, the vases: and these must, of course, never be forgotten in any study of style. To return to the coins and the sculptures: it will be as well to determine some of the limitations of their comparative study and the discipline which it imposes. First, although reliefs in marble and reliefs on coins are both forms of sculpture, their material is different and the method of working is different. Marble is shaped by abrasion or by percussion or by drilling: coin-dies may be partly produced from hubs and punches engraved in relief, or may be based on relief-models in wax or clay; but the final process is carried out in intaglio by the drill, the graver, or the wheel. The shape of the field is different, and this affects not only the linear design but also the height and gradation of the modelling. These different conditions and the formal differences which result from them must be reckoned with when comparisons are made.

The comparative abundance of the coins and the common practice of issuing a *series* of dies, one copying the other with little alteration (a process facilitated by the quasi-mechanical process of hubbing), is also an important factor without close parallel in other forms of art. That is to say, the advent of genuinely new dies must be looked for carefully—genuine artistic creations as distinct from those which are simply versions of the old. Further, if we include in our comparison with coins, and we certainly ought to do so, free statues and heads, bronzes and terra-cottas, not only must we allow for the technical peculiarities of each—actually the technique of bronzes and terra-cottas has much in common with that of coins—but also we must remember the difficulty presented by these being fully in three dimensions, whereas the designs on coins have a limited third dimension. The obvious and constant difficulty here is the comparison of a head, by a sculptor, carved in the round, when *seen* in profile, with a head which has been actually *modelled or carved* in profile by the maker

[1] The difficulty has been largely a physical one, and to surmount it Father C. H. Heithaus, S.J., of St. Louis University, Mr. E. S. G. Robinson of the British Museum, and I have constructed, with the help of the Committee of University College, London, a seminar lecture-theatre in which we have three projectors. There we can project at the same time and (this has always been the difficulty before) about the same size, coins, sculpture, and vases. Because small film is cheap, hundreds of comparisons can be easily made. Once used, it is recognized as a valuable piece of apparatus. (*Note*. In the present article coins are enlarged approximately two diameters.)

of a coin; and especially does this apply to the eye, which is such a valuable criterion for dating. In sculpture in the round the eye is automatically put into profile when you turn the sculptured head to one side: but the die-engraver, like the relief-sculptor and the vase-painter, only gradually (because of his vivid memory of the real eye and its extremely memorable and characteristic shape when seen from the front; one might add, because of the absence of photography), only gradually comes to realize that the eye in a head seen from the side is also itself seen sideways: allowance must be made for this, or one finds oneself tending to date the heads in the round later than they should be.[1] Further, in reliefs generally, as well as in coins, the archaic smile is rarer than it is in free sculpture: there is neither the same demand for it—the person on a coin rarely addresses himself to the spectator—nor, indeed, so easy a method of suggesting it, when it has to be foreshortened, as it has in a face shown sideways.

To speak generally, the relation between coins and sculpture may be of two kinds. The first is community of style between coins and sculpture. This is caused by the two artists, die-engraver and sculptor, living at the same time, working in the same environment, or being of the same race. When these three factors, time, race, and environment, coincide, then there is likely to be the greatest degree of similarity; but naturally any of the three factors separately can produce certain resemblances. The value of observing and analysing this kind of similarity is that it may help to fix one or all of these factors—date, place of origin, and race—of either the die-engraver or the sculptor, or both; for it so happens that sometimes a coin is fairly closely dated, and its origin known, on external evidence. The sculpture can then be dated from the coin; or vice versa. Where there does not happen to be a single coin strikingly similar to a single piece of sculpture, the general trend of style in a group of coins may be a fair index to date and development in sculpture too.

The second kind of relationship is when the head or figure on a coin is directly inspired by, or copied from, an actual statue, whether only a little earlier or much earlier than the coin. Naturally there will here be varying degrees of faithfulness, according to whether the die-engraver wishes to reproduce the spirit or only the superficial appearance of the work. The most obvious example of the last is the Greek bronze coinage of Imperial times, where the intention is clear—to bring to mind a particular statue. There are modern examples of this —the Aphrodite of Melos as a trade-mark is universally recognizable,

[1] Also, the projection of nose and chin, apt to be strong in archaic sculpture, is often stronger still in low reliefs and vase-paintings, giving them an earlier look.

however debased the reproduction. But there are plenty of earlier examples, some certain, some doubtful: I need only mention Apollo on sixth-century coins of Caulonia, Zeus on the unique tetradrachm of Aetna in the early fifth century, and the numerous reproductions of statues on coins of Abdera in the late fifth century. Usually the reproduction is freer the earlier the period, because in periods down to about the fourth century B.C. the engraver tends to be an independent creator rather than a copyist, and is scrupulous of his own technique: but I do not think tolerably accurate reproductions are impossible at any time.

I cannot here give a comprehensive treatment of the whole subject, or anticipate in detail the results we hope to attain, but shall touch lightly on two examples of the kind of thing that can be done. This is to commit precisely the fault I deplore—that of considering a part of the evidence only; but until our methods of presentation improve, one cannot do otherwise. The first example, the art of south Italy and of Sicily in the sixth and early fifth century, illustrates the help which may be got from the combined evidence of sculpture and coins in dedetermining the origin and geographical distribution of certain styles. Here nothing is known of the origin of the die-engravers, because colonies are apt to be very mixed places and the attitude towards the mother country may vary much from time to time: this or that faction may be uppermost at a given moment, and consequently even this or that style. But there is at least one indication of the origin in a mother-city of colonial die-engraving: Figs. 1 and 2 (Pl. I) show Tarentine coins put beside a bronze, Figs. 3 and 4 (Pl. I), which comes from Sparta and is generally agreed to be of Spartan style. There is some indication also that at least one true colonial style eventually came to be formed in Sicily and south Italy: Figs. 5, 6, 7, and 8 (Pl. II) show a coin of Catana, a coin of Leontini, the marble head from an acrolithic cult-statue in the temple at Crimisa in south Italy, and a head from a metope of the Heraeum at Selinus. All are of western origin, and have enough in common to suggest that they were actually made in the west and owe their similarity to that.[1]

The second example is taken from Athens about the middle of the sixth century. A small group of objects covering only a few years is selected, all generally agreed to be Attic, with a view to demonstrating the method, the difficulty, and at the same time the value, of fixing the date of even a single coin; and, I should add, the caution with

[1] I have dealt with this at slightly greater length in 'Late Archaic and Early Classical Greek Sculpture in Sicily and South Italy', *Proceedings of the British Academy*, vol. xx, from which figs. 1–8 are taken.

which attempts at absolute chronology must be treated. The objects (Pl. III) chosen serve also to illustrate differences caused by different materials, different media—sculpture in the round, sculpture in relief, vase-painting—and different scales. They are:

(*a*) (Fig. 9) The standing goddess in Berlin, a life-size marble statue from Attica (*Antike Denkmäler*, iv. 8 ff., Pls. 11–18).

(*b*) (Fig. 13) The head broken from a female statue in marble, about two-thirds life-size: Acropolis, no. 654 (Payne and Young, *Archaic Marble Sculpture from the Acropolis*, Pl. 11).

(*c*) (Fig. 11) The girl carrying water, a figure in poros from a pediment on the Acropolis—the whole figure some fifteen inches high (Dickins, *Acropolis Catalogue*, i. 69 ff.).

(*d*) (Fig. 14) The relief of a man holding a discus on the far side of his head, marble, about life-size, a grave-relief from Athens (Stais, *Marbres et bronzes*, p. 17, no. 38).

(*e*) (Fig. 10) The head of Athena from the Burgon Panathenaic amphora in the British Museum (B. 130: *Catalogue of Vases*, ii. 98).

(*f*) (Fig. 12). A die of which the best impression is on a coin from the Balliol collection in the Ashmolean Museum at Oxford.

If style was evenly developed among Athenian artists,[1] (*e*) and (*f*) must be fairly close to each other in date; both have strongly projecting nose and chin, but the mouth is smaller on the coin and set nearer to the nose. If the vase is to be dated about 566 (it was not necessarily made, as is generally assumed, in the first year of the reconstituted Panathenaic Games, but must, from general considerations of style, date from then or not long after), the coin may be a few years on either side.[2] (*d*) (Fig. 14), the discophoros, looks later; the mouth is close to the nose, but larger, the chin and nose still project strongly, though not so strongly, and this may be due in part to the material, the height of the relief, and the size. Let us say

[1] This is an unproved assumption, and, though it is, so far as general development goes, not improbable, must clearly not be treated as dogma.

[2] Two arguments have lately been put forward, the one suggesting a possible earlier limit of date for the Burgon amphora, the other a later. Rumpf (*Sakonides*, p. 21, note 51) points out that the innovation of Peisistratus in 566 was the athletic contests, and that therefore the amphora, which bears a racing chariot, need not be so late as that: while Loewy (*Zur Datierung attischer Inschriften*, Akad. d. Wissenschaften in Wien, *Sitzungsb.* 216, p. 21 f.) claims that this and other vases like it may well be archaistic and therefore later, even much later. But the fragment at Halle (Rumpf, op. cit., pl. 8, c), which cannot for the reasons stated be earlier than 566, differs little in development from the Burgon, though finer in style; and it cannot be far distant in date. Nor can I believe, as Loewy holds, that the charioteer on the Burgon is archaistic, any more than the spirited runners at Halle.

some years after 560: a head with which it may well be compared is (*b*) (Fig. 13), dated by Payne[1] shortly before mid sixth century. Turn now to the other two heads in the round. The goddess in Berlin (*a*) (Fig. 9) is usually dated about 575. She has much in common with the Balliol coin, though she might well look earlier than she does if her profile showed a great frontal eye. Can she be as much as ten years earlier? Even more difficult is the small poros head (*c*) (Fig. 11). This is a subtle work in a softer material, with the planes less sharply defined, and it looks a good deal later than 570, the date sometimes given.[2] I should prefer to put it nearer 560.

The inference to be drawn from the handling of this mainly internal evidence is that the die (*f*) (Fig. 12) was made round about 565. This may seem a slight result, but if we could fix a dozen such points at intervals of a few years through the sixth century, it would form a far more solid basis for the classification of Athenian coins than any which has been produced hitherto. In the more extensive study which Mr. Robinson and myself hope to undertake, additional criteria, some applicable only to long series of coins, can be used, and these may afford us a few other reasonably certain dates. Both these groups of evidence are before the classical period. After the middle of the fifth century, with the fame of sculpture more widely spread, style becomes a less sure guide: the relationship between coins and sculpture is at the same time more complicated and less illuminating.

[1] *Archaic Marble Sculpture from the Acropolis*, p. 5.

[2] e.g. by Payne, op. cit., p. 3, note 1. Heberdey (*Altattische Porosplastik*) puts it as far back as 600.

THE APHLASTON, SYMBOL OF NAVAL VICTORY OR SUPREMACY ON GREEK AND ROMAN COINS

AGNES BALDWIN BRETT

(*Plates IV–V*)

THE aphlaston, called *aplustre* in Latin, is the curving end of the stern of an ancient war galley which, like the acrostolion of the prow, was torn from an enemy's ship and carried away by the victor

FIG. 1. (Enlarged 4 diam.)

in a naval battle and subsequently exhibited as a trophy.[1] Clear representations of the stern are to be seen on certain coins of Histiaea and Phaselis,[2] and of the aphlaston alone on late bronze coins of Corcyra.[3] Poseidon seated, holding the trophy, appears on coins[4] of

[1] *J.I.N.* xvi, 1914, p. 81 f.; *Z.f.N.* xxxiii, 1922, p. 185 f.
[2] Cf. Fig. 1, and *Num. Notes and Mon.*, no. 2. *B.M. Cat. Lycia*, pl. xvi, 9.
[3] *B.M. Cat. Thessaly*, pl. xxiv, 16.
[4] Plate IV, 1.

Demetrius Poliorcetes, *c.* 292 B.C., symbolizing control of the sea, fifteen years after his victory over Ptolemy I off Salamis in Cyprus, 306 B.C.

Less familiar is the Athena with the emblem in her hand on an electrum stater of Cyzicus.[1] Since its style indicates a date *c.* 450 B.C., the year of Cimon's signal victory on the Eurymedon in 467 is too early. But his second decisive defeat of the Persian fleet off Cyprus in 450 supplies a date in accord with the style of the coin and with the historical requirement, an Athenian naval success in which Cyzicus was vitally interested.

FIG. 2.

Another Cyzicene stater of fourth-century style with kneeling Nike holding an aphlaston[2] doubtless commemorates the victory of Conon and Pharnabazus over the Spartans off Cnidus in 394. For, while Cyzicus came under Spartan domination after the Athenian defeat at Aegospotami in 405, she joined the anti-Spartan League of certain cities of Asia Minor in 389 after Byzantium had been won over for Athens by Thrasybulus, as witnessed by her issue of a silver stater of the League class[3]—infant Heracles strangling serpents, inscribed ΣΥΝ (for ΣΥΝΜΑΧΙΚΟΝ) with a lion's head as local reverse.

Since Conon's expedition was based upon Cyprus and aided by Euagoras I, King of Salamis,[4] the reverse types of two rare Cypriote staters, Athena seated on a prow holding aphlaston,[5] also refer to this Athenian success. These similar coins inscribed in Cypriote, Ba-si . . . A-ri (𐤁𐤀𐤔𐤉𐤀𐤓𐤉) were presumably issued under the authority of Euagoras at Curium (?) in the name of Aristophanes, son of Nicophemus, an Athenian in his service.[6] Their style reveals marked

[1] Plate IV, 2, Boston example = Pozzi Cat., Naville, i, 1921, no. 1287. The battle of Salamis, 480, may be reflected on a vase painting of Athena holding an aphlaston, a r. f. lecythus by the Brygos painter dated by Miss Richter (*Red-figured Athenian Vases*, 1937, pl. 46, no. 48) between 480 and 470 B.C. Here, Fig. 3.

[2] Plate IV, 3, *B.M. Cat. Mysia*, pl. vi, 16.

[3] Hill, *Num. Chron.* 1928, pl. ii, 30, and p. 11.

[4] Isocrates, Euagoras, 54–7. Paus. i. 3. 1. Judeich, *Kleinas. Studien*, ch. iii.

[5] Plate IV. 4 (Paris); cf. Fig. 2 (Berlin). *B.M. Cat. Cyprus*, pl. xxv, 6, 7.

[6] *B.M. Cat. Cyprus*, p. xliv; Babelon, *Traité*, ii², no. 1368.

Athenian influence, the seated Athena being derived, in the opinion of R. Kekulé, from a sculptured prototype on the parapet of the Nike temple at Athens executed about 410. The symbolism of their obverse type, Heracles wrestling with the lion, is that of victory, just as on the earlier gold coins of Syracuse, and is paralleled by the type,

FIG. 3.

Heracles strangling the serpents, on the silver League coins noted above, which commemorate Conon's victory.

At Himera the Nike with aphlaston bound with long fillet on small silver coins[1] struck somewhat later than 480 B.C. probably refers to Gelon's victory which, though gained on land, included the subsequent capture and burning of a number of Carthaginian ships.

On the Syracusan tetradrachm by Phrygillos[2] the Nike flying above the quadriga holds quite exceptionally an aphlaston, which

[1] Plate IV, 6 (Newell); cf. Fig. 4; the coin has been mounted, in error, sideways.

[2] Plate IV, 5; *Z.f.N.* xxx, 1913, no. 49. A full discussion of Syracusan Victory types is given in my paper in *Num. Notes*, no. 75.

commemorates the naval victory of Syracuse over the Athenian fleet in the harbour, which raised the long siege in 413 B.C.

The aphlaston as symbol in the field occurs on a single issue[1] of the satrapal tetradrachms of Ptolemy I begun about 312, types, Alexander head in the elephant's scalp, and Athena Promachus, inscription, ΑΛΕΞΑΝΔΡΟΥ. As it belongs to the earliest group bearing magistrates' initials or monograms, but usually no symbols, it would seem that Ptolemy might be thereby indicating a naval victory, or at least naval supremacy. From our analysis of certain satrapal tetradrachms in the Newell collection from the Abu Hommos hoard found in Lower Egypt in 1919 and containing a specimen with aphlaston, we are able to date the issue around 310 when Ptolemy seized Cyprus. This island, for the possession of which Antigonus and Ptolemy had intrigued with the local kings for ten years, was the strategical naval base for control of ship routes in the Eastern Mediterranean, as it is to-day for fleets of the air. Here, after the deaths of Nicocles of Paphus and Nicocreon of Salamis, Ptolemy stationed his fleet.[2]

FIG. 4.

Fortunately in the hoard there is a dated satrapal tetradrachm of Sidon[3] (unpublished), mint mark, ΣΙ, and the letter-date Χ, year 22 of the Alexandrian Era beginning 333/2, equivalent to 312/11 B.C. According to style-development, the aphlaston piece was struck subsequently at the Alexandria mint. Now there exist other satrapal tetradrachms of Alexandria with the same monogram ⚘ as the aphlaston coin,[4] but without the symbol, which are of Attic weight while the latter is 'Rhodian'. Hence the transition to 'Rhodian' took place soon after 310 with this very issue, a date considerably earlier than that assigned by Svoronos, i.e. 305/4.[5]

Incidentally our study of these coins enables us to ascribe to Soli in Cyprus another unpublished tetradrachm in the hoard of similar types but Cypriote mintage.[6] It bears a monogram ⋐ followed by a Β which together, we believe, represent the name and royal title of Eunostus, king of Soli, who married Eirene, daughter of Ptolemy I by the courtesan, Thais. To this mint and to this king have been attributed tetradrachms of Alexander with caduceus symbol from

[1] Plate IV, 11 (Newell), from Abu Hommos hoard.

[2] Ptolemy placed the aphlaston as symbol on later bronze coins of Cyprus after his reconquest in 295.

[3] Plate IV, 7 (Newell), Abu Hommos hoard.

[4] Plate IV, 10. Svoronos, *Τὰ Νομ. τῶν Πτολεμαίων*, pl. ii, 17.

[5] Newell, *A.J.N.* 1918, p. 125; Giesecke, *Ptolemäergeld*, p. 37; Robinson, *B.M. Cat. Cyrenaica*, p. lxxxvii.

[6] Plate IV, 8 (Newell), Abu Hommos hoard.

the Demanhur hoard,[1] and a copper coin having on the reverse a caduceus flanked by *Βα · Εὐ* in Cypriote.[2] The Soli tetradrachm is of Attic weight and hence precedes the 'Rhodian' aphlaston issue of Alexandria, and its issue is due to Ptolemy's conquest of the island and subsequent alliance with Eunostus in 310.

To the mint of Soli we may now assign the satrapal tetradrachms of Ptolemy bearing the caduceus, the distinguishing mint-mark of Soli.[3] These are the pieces classed as uncertain, *Νομισματοκοπεῖον Ἀβέβαιον*, by Svoronos in vol. ii, p. 16, but correctly given to Cyprus in his text. By exception they are inscribed not ΑΛΕΞΑΝΔΡΟΥ but ΠΤΟΛΕΜΑΙΟΥ, as are also Cypriote bronze coins dated by Svoronos in the period 310–305 B.C.[4] The tetradrachms must have been struck after 310 and before 306, the year in which Ptolemy lost the island to Demetrius Poliorcetes. They are of 'Rhodian' weight, and the plump, rounded figure of Athena is close in style to that on the Eunostus coin with Ε< Β of Attic weight. If Eunostus's reign ended in 310, as modern historians have supposed, the coin with his initials was struck in that year and the caduceus coins soon afterwards.

The aphlaston on Cypriote tetradrachms of Ptolemy VI (or VIII) from the mint of Citium, mint-mark ΚΙ, letter-date ΛΑΒ, year 32 (Svoronos, no. 1481), is merely one of three variable symbols, and has therefore no other intent than to distinguish successive issues of this year, as Svoronos thought.

On Corcyraean bronze coins of about 300 B.C. the standing Nike holding aphlaston and wreath (ΚΟΡ) modelled on that of Alexander's gold stater,[5] a type copied by his successors and other kings,[6] must denote the victory of a king who took Corcyra in a naval battle. Its obverse, an eagle, also an intrusive type in the coinage, should furnish the clue to the issuer. Pyrrhus of Epirus bore the surname of 'Eagle'[7] and is known to have held Corcyra. Thus at first sight the types are easily explained, and only the question of the date remains. Pausanias states that Pyrrhus captured the island 'on coming to the throne'.[8] But Pyrrhus is not otherwise known to have had a fleet of his own

[1] *Num. Notes*, no. 19.

[2] *A.J.N.* xlviii, p. 69, no. 31. Small gold coins are attributed to Eunostus by Babelon, *Traité*, ii², no. 1350.

[3] Plate IV, 9 (Brit. Mus.). Svoronos, no. 96.

[4] Svoronos, nos. 74–82.

[5] Plate V, 1; *B.M. Cat. Thessaly*, p. 124.

[6] At first the type is exclusively regal. Agathocles copied the types of Alexander's stater on his bronze issued at Hipponium during his domination of Bruttium 296–294 B.C. Though we thus have an Agathoclean parallel for the Corcyraean reverse, the latter cannot be ascribed to Agathocles on account of the Pyrrhic obverse, nor could Pyrrhus have struck it for Agathocles's conquest of Corcyra about 298 because of the date of the eagle type.

[7] Plutarch, *Pyrrhus*, x.

[8] I. xi, 6.

at any time. Moreover, it was only in 289 that he was publicly acclaimed as 'Eagle' by the Epirotes.[1] Hence the obverse type cannot so easily be connected with a victory which Pausanias affirms took place in 295.

According to Diodorus[2] and Plutarch,[3] Pyrrhus obtained Corcyra as a wedding dowry by his marriage with Lanassa, daughter of Agathocles of Sicily, and held it until 291, when he lost both island and wife to Demetrius Poliorcetes. Since Agathocles certainly annexed the island about 298 after wresting it from Cassander, Pausanias is in error as to the date of Pyrrhus's seizure. This could only have been in 281, when the king through his alliance with Tarentum first possessed a fleet. This is the view of C. Klotzsch,[4] the most recent historian of Pyrrhus, who, however, was not aware of our interesting numismatic evidence which clearly proves his occupation of Corcyra after 289. We believe that Pausanias's own reason for the raid, 'that he did not wish that others should use it as a base for operations against himself', applies with greater force in 281, when Pyrrhus was setting out for Italy.

If, then, the 'language' of these types has been correctly read, the coins are issues of Pyrrhus in Corcyra in 281, and fully confirm the comprehensive analysis by Klotzsch of all the evidence, which is more extensive than here cited.

The aphlaston occurs as type on autonomous bronze coins of Corcyra[5] under the Roman protectorate, after 229 B.C., which belong to the prow series with names of Prytaneis, and both types may relate to galley races like the earlier group with names of the galleys.

The significance of the little Nike with aphlaston, as symbol on the unique stater of Alexander,[6] one of his earliest issues, remains as obscure as that of the type itself, Nike holding stylis, since no sea victories were won. Probably it denotes desired sea supremacy to be achieved under the aegis of Athena, whose head forms the obverse type. On another Alexander stater,[7] and on a posthumous tetradrachm,[8] the emblem is found in the left field, but until the dates and mints are determined no historical events can be suggested. But the Alexander stater of Antigonus Gonatas,[9] commonly but

[1] On his return from Aetolia victorious over the Macedonians, *Pyrrhus*, x.

[2] xxi. 4; xxii. 8, 2.

[3] *Pyrrhus*, ix.

[4] *Epirot. Gesch.*, pp. 213, 215, note 1. Corcyra was still in the hands of Demetrius, 288/7, but had since then probably won back its freedom.

[5] *B.M. Cat. Thessaly*, pl. xxiv, 19, 20.

[6] Plate V, 2 (de Nanteuil Coll., formerly Lederer), *Z.f.N.* 1922, p. 185.

[7] Plate V, 3 (Brit. Mus.).

[8] Plate V, 5 (Newell).

[9] Plate V, 4; cf. Newell, *Coinages of Demetrius Poliorcetes*, p. 14.

erroneously given to the elder Antigonus, commemorates his victory off Cos, 258, to which his tetradrachms, Poseidon head—Apollo on prow, make striking allusion.

On Rhodian didrachms of 189–166 B.C. signed by the magistrate, ΜΝΑΣΙΜΑΧΟΣ,[1] a small figure holding aphlaston, sometimes Athena, sometimes Nike, probably indicates the naval victory over Antiochus III in the waters off Myonnesus and Cape Corycus, 190 B.C. For, by the Treaty of Apamea, following the final defeat of Antiochus at Magnesia, Caria south of the Maeander and Lycia were added to the domain of Rhodes, who gave evidence of her increased prosperity by striking special regal staters and tetradrachms with the same magistrates' names as occur on the didrachms. These are gold staters with the name and types of Philip II, the rose and Ρ Ο, and ΜΝΑΣΙΜΑΧΟΣ; with Lysimachus's name and types, the rose, and ΑΡΙΣΤΟΒΟΥΛΟΣ; and Alexander tetradrachms with Ρ Ο and ΜΝΑΣΙΜΑΧΟΣ. The aphlaston symbol in the hand of Nike on these didrachms should according to precedent refer to a specific naval victory, whereas the aphlaston on the gold quarter-stater[2] may denote merely restoration of Rhodian naval power, since the symbol on the earliest Rhodian tetradrachms appears to have only a generic meaning.

FIG. 5.

On tetradrachms of Areus,[3] King of Sparta, the symbol surmounted by a cock (of Apollo?) is found on the *agalma* of Apollo of Amyclae. The most probable interpretation we can offer is the alliance with Ptolemy II, whose fleet dominated the seas at the beginning of the Chremonidean War, 266 B.C.

The type of the hero, Marathus, seated on a pile of shields holding the emblem on the tetradrachms of Marathus in Phoenicia,[4] points to the terrible struggles on land and sea which Marathus endured to maintain her independence.

Her great enemy, Aradus, adopted for her first issue of large coins (tetradrachms)[5] the type of Nike holding the aphlaston (and palm-branch) after she had conquered her rival. These begin in the year ΒΚΡ, 122 = 138/7 B.C.,[6] and their great abundance coupled with the type chosen shows that Aradus was at last in command of the sea-borne trade over which she had fought so bitterly with Marathus.

[1] Plate V, 6 (Newell) and 7 (Brit. Mus.).

[2] *B.M. Cat. Caria*, p. 252, no. 234; also, staters, ibid., p. 251, no. 230, and Paris, Waddington, 2783.

[3] Plate V, 8 (Brit. Mus.).

[4] Plate V, 9 (Paris). (Babelon, *Perses Achem.*, p. clxxv.)

[5] Plate V, 10 (Brit. Mus.); cf. fig. 6.

[6] Newell Coll. The earliest date in the Brit. Mus. is ΓΚΡ.

Finally we may note the symbol at Leucas,[1] mint for Acarnania after 161 B.C., in the hand of Aphrodite Aineias, protector of sailors, whose temple stood on the north coast of the island. Here the

FIG. 6. (Enlarged diam.)

symbolical intent may be just that of naval supremacy. The obverse type is a prow.

ROMAN COINS

As the various naval victories symbolized by the aphlaston on Roman coins have already been identified by numismatists through the study of the moneyers, there remains only the task of listing them. As in the case of the Greek coins we do not include instances where the emblem is just a variable symbol. Our examples are all from the first century B.C., when historical allusions on coins are common.

M. Servilius issued aurei[2] and denarii at Sardes for C. Cassius's defeat of the Rhodian fleet off Cos in 43 B.C., types, head of Liberty—aphlaston whose branches each terminate in a rose; and also denarii[3] with the same obverse—crab holding an aphlaston in its claws, symbolizing Cos, and below, a diadem and rose, emblematic of the royal honours offered by Rhodes to Cassius.[4]

Sextus Pompey struck the following denarii referring to his

[1] Plate V, 11.

[2] Plate V, 12 (Brit. Mus.).

[3] Plate V, 13 (Brit. Mus.).

[4] The writer is unable to accept Prof. Alföldi's interpretation of this coin type (*Mitt. d. Deutsch. Arch. Inst.*, vol. 50 (1935), p. 146).

successes over Octavian (1) for his exploit off Sicily,[1] period 42–38 B.C., head of Pompey the Great—Neptune with aphlaston standing between the Catanaean brothers, (2) for his victory off the Scyllaean promontory,[2] 38 B.C., Neptune's head—trophy to which are attached the dogs of Scylla, with left and right arm ending in an acrostolion and an aphlaston, respectively.

S. Sulpicius Galba alluded to his ancestor's attack on Aegina in the Aetolian War, 209 B.C., by issuing, probably in 54 B.C., denarii with reverse,[3] an elaborate naval trophy flanked below, left and right, respectively, by an aphlaston and an acrostolion, and adorned midway by a second aphlaston, and also by a rudder and an anchor.

Sulla's son, Faustus Cornelius Sulla, in 54 B.C., honoured his father-in-law, Pompey the Great, by a denarius reverse,[4] a globe surrounded by four wreaths having below at the left an aphlaston, and at the right an ear of corn. In this type we see a reference to the *sum* of Pompey's achievements, that is to say, the aphlaston will be an allusion to his clearing the seas of pirates which took place in 67, when the Senate decreed to Pompey the privilege of wearing on public occasions the jewelled wreath represented at the top of the design:—the other three wreaths referring to his conquests on three continents, and the ear of corn to his appointment as 'praefectus annonae' in 57, as fully explained in the British Museum Catalogue.

Finally Octavian represented Neptune resting his right foot on a globe and holding aphlaston, on a denarius[5] of 29–27 B.C. commemorating his control of the seas after Antony's downfall at Actium. The obverse type, bust of Victory, makes the meaning all too plain, and the reverse type is reminiscent of the standing Poseidon type of Demetrius Poliorcetes.

Coins with aphlasta of lesser importance might be cited, but space does not permit. Of great interest as bearing an Athena with the symbol is the gem[6] in the British Museum. Athena is of the Parthenos type and the gem is to be dated *c.* 420 B.C. (cf. *B.M. Catalogue of Engraved Gems*, no. 515). It was set in a ring found at Curium, Cyprus. Ordinarily one would not expect to find historical allusions on gems, but it is certainly interesting to reflect that in 420 Athens, just after the peace of Nicias (421), was at the zenith of her power as mistress of the sea. A reassessment of tribute had been imposed upon the members of the Empire in 425–423, and a decree enforcing the use of a uniform currency (?), weights, and measures had been passed

[1] Plate V, 14.
[2] Plate V, 15 (Brit. Mus.).
[3] Plate V, 16 (Brit. Mus.).
[4] Plate V, 17 (Brit. Mus.).
[5] Plate V, 18 (Brit. Mus.).
[6] Fig. 5.

in 423. Since the historical background for the creation of this Athena Parthenos type in which an aphlaston has been substituted for the usual Nike is so perfect, we may reasonably attribute to its creator an intention to represent Athens like a modern Britannia.

That the aphlaston was the trophy *par excellence* of naval victory, a more powerful symbol than the acrostolion, is evidenced by the coins, and many other monuments, and attestations of ancient writers and inscriptions. The reason for this lies in its structural significance. For it was no mere ornament on the stern, but, as Svoronos proved, a semaphore or signal-post, consisting of a group of curving slats or boards of varied heights on which were hung the pennants or 'taenia', signals of the captain who thus controlled (by day) the manœuvring of the fleet from his position aft by the rudder.

In the xvth Iliad (ll. 716, 717), Hector urges the Trojans to burn the Greek ships, holding the while in his hands, the aphlaston which he had wrested from a Greek galley (*ἄφλαστον μετὰ χερσὶν ἔχων*). At the battle of Marathon, Aeschylus's brother fell, his hand hacked off by an axe as he grasped the aphlasta (thus Herodotus, vi, 114, *ἐπιλαμβανόμενος τῶν ἀφλάστων νηός*) of a Persian ship at the water's edge. Obviously, these two heroes wanted to exhibit, as a symbol of victory, the signalling apparatus of an enemy's ship.

From the above passages we may conclude that, whereas *ἀκρωτήριον*, a more general term, sometimes occurs in literary and inscriptional texts to denote aphlaston, the latter is the specific word and in good classical usage (cf. Athenaeus, v. 37, *ὕψος ἕως ἀκροστολίου τεσσαράκοντα ὀκτὼ πηχῶν, ἀπὸ δὲ τῶν πρυμνητικῶν ἀφλάστων ἐπὶ τὸ πρὸς τῇ θαλάσσῃ μέρος αὐτῆς, κ.τ.λ.* for its use in a technical description). Also compare Cecil Torr, *Ancient Ships*, and *J.H.S.* 1933, p. 99.

ADDENDUM

Note to p. 28. The golden Nikai statues on the Acropolis at Athens probably held aphlasta in their hands (*J.H.S.* 1933, p. 101). If so, the art type was well known in Athens before Alexander's time. Dr. Ph. Lederer has most ably demonstrated the probable Athenian origin not only of the types of Alexander's gold stater coinage but also of the unique symbol, Nike with aphlaston, on what is apparently the first issue (*Z.f.N.* 1922).

LOKALE ELEMENTE IM STIL ARCHAISCHER GRIECHISCHER MÜNZEN

HERBERT A. CAHN

FORSCHUNGEN jüngerer Zeit[1] gelang es, die lokalen Stilelemente in der griechischen, besonders in der archaischen Kunst genauer abzugrenzen und deren Eigenheiten klarer zu bestimmen als es bisher möglich war. Die Münzen spielten bei diesen Untersuchungen nur eine geringe Rolle; doch dürfen wir *a priori* annehmen, daß auch sie, da die Griechen sie von Anfang an bewußt als Kunstwerke gestalteten, in ihrem Rahmen die örtlichen Stilverschiedenheiten ausdrücken.

Unser Versuch will dies mit einigen markanten Beispielen belegen. Die Raumnot zwang zu strenger Beschränkung; selbst aus den dem Vortrag zugrunde gelegten Beispielen mußte eine Auswahl getroffen werden. — Es sei zuvor noch bemerkt, daß zur Methode des Stilvergleiches zwischen Münzen und Plastik einige wohl endgültige Dinge auf unserem Kongreß durch Prof. Ashmole gesagt worden sind.

Wir beginnen mit dem griechischen Osten. Dort herrscht der 'ionische Stil' vor, der, aufgeschlossen der Ornament- und Flächenkunst des Orients, den Körper als eine nur auf der Oberfläche gestaltbare Masse ansieht, und dessen Formwille wesentlich im schönen Linienschwung der Umrisse sich auslebt. — Als erstes Beispiel stellen wir einen ionischen Silberstater des späten siebenten Jahrhunderts (angeblich von Knidos)[2] neben ein athenisches Tetradrachmon des frühen sechsten Jahrhunderts.[3] Schon hier zeigt sich die ganze Gegensätzlichkeit ionischer und attischer Kunstübung. Grundverschieden das Verhältnis von Relief zum Grund: kontrastierend an der attischen Münze, auf welcher der Umriß an keiner Stelle zu einem einheitlichen, bewußt geführten Duktus sich zusammenschließt — harmonisierend an dem ionischen Stück, indem hier die Kontur des Kopfes in ihrer klaren Ausprägung primär das Objekt der künstlerischen Formung ist. Grundverschieden ist auch die Plastik: dort körperliche Gestaltung mit nur plastischen Mitteln, hier reine Oberflächengestaltung mit nur graphischen Mitteln. Ebenso verschieden

[1] E. Langlotz, *Frühgriechische Bildhauerschulen*; E. Buschor, *Altsamische Standbilder*; H. Payne, *Necrocorinthia*; E. Pfuhl, *Jahrb. d. Inst.*, xli, 1926, 129.
[2] Regling, *Münze als Kunstwerk*, 23; Babelon, *Traité*, pl. 18, 9.
[3] Regling, 90.

endlich der Ausdruck: jeder Gesichtszug der Athene strahlt Kraftbewußtsein und Vitalität aus, während der ionische Kopf zaghaft und matt im Ausdruck, der Blick ohne Richtung zu sein scheint. Werke der frühionischen Plastik sind in Form und Geist eng verwandt, z. B. der Frauenkopf der 'columna caelata' des ephesischen Artemisions[1] oder ein männlicher Kopf vom Heraion in Samos.[2]

Ein Elektronstater von Kyzikos, mit dem Kopf eines bärtigen Gottes (spätes sechstes Jahrhundert)[3] zeigt die gleiche Kunst auf entwickelterer Stilstufe. Noch einheitlicher ist die Führung der Umrißlinie, noch weicher, gedämpfter der Ausdruck, noch mehr bildet das Relief eine in sich geschlossene Masse ohne plastische Gliederung. Die Ähnlichkeit mit einem milesischen Marmorköpfchen im Louvre[4] weist unsere Münze in den Einfluß der Bildhauerschule Milets.

An dem etwa gleichzeitigen Didrachmon von Erythrai,[5] mit dem nackten Reiter, sieht man, wie diese Kunst eine Ganzfigur komponiert. Das Bild breitet sich in der Fläche aus, ganz dem Rund angepaßt; doch hat es keine innere Achse, und das Fehlen der Abschnittslinie verstärkt die Unstabilität, den Mangel an Tektonik. Dies zeigt sich uns noch deutlicher, wenn wir daneben ein syrakusisches Didrachmon[6] stellen, ein Produkt rein dorischer Kunst: es sind zwei extrem verschiedene Lösungen fast des gleichen Vorwurfs. Wenn der Dorier mehr Gespanntheit in der Haltung hat, mehr Bewußtheit und Ordnungssinn im Bildaufbau, wenn er seine Gestalt stärker plastisch durchbildet, so übertrifft ihn der Ionier an sinnlichem Leben der Bewegung, an Schwung und Flüssigkeit der Linien.

Eine Sonderstellung in der archaischen Kunst nehmen die Bildhauerschulen der Inseln zwischen Ionien und dem griechischen Mutterland ein. Dorisches, von der Peloponnes, und Ionisches trifft hier zusammen. Doch ahmen diese Schulen nicht peloponnesische oder ostgriechische Manier nach: es entstehen eigene, unter sich vielfach differenzierte Stile, die teilweise genau lokalisiert werden können.

Der Diskobol auf den Tetradrachmen der karischen Insel Kos[7] ist ein typisches Produkt dieser 'nesiotischen' Kunst. Ein an Akzenten und Kanten reicher Umriß, das kühne Bewegungsmotiv, die Schlankheit und Biegsamkeit des Körpers, alles sind Anzeichen, die auf die Schule von Paros hinweisen. Verwandt im schlanken

[1] *B.M. Cat. Sculpture*, I. 1, B. 91 (pl. v).
[2] Buschor, a. a. O., I. 42.
[3] Regling, 125; *Traité*, pl. 6, 33.
[4] Langlotz, a. a. O., Tf. 63.
[5] Regling, 164; *Traité*, pl. 12, 10 ff. (falsche Richtung).
[6] Boehringer, *Münzen von Syrakus*, 32.
[7] *Traité*, ii, pl. 148, 9 ff. (früher zu datieren).

Körperbau, in der Gerecktheit der Bewegung ist eine Stele in Cherson,[1] die Langlotz aber als naxisches Werk ansieht.

Der Apollonkopf der um 500 entstandenen Silbermünzen von Siphnos[2] ist in engen Zusammenhang zu bringen mit einem etwa gleichzeitigen, der parischen Schule zugewiesenen Marmorkopf.[3] In der Rundung des Umrisses, der Zartheit der Oberflächenbehandlung zeigt die Münze noch östliche Elemente, doch die Frische des Gesichtsausdruckes, die plastische Bildung und Abgrenzung der Einzelteile ist im Ostionischen nicht denkbar.

Wir lenken nun unsere Betrachtung nach der Peloponnes mit ihrer in viele Bildhauerschulen verzweigten dorischen Kunst. Schon oben haben wir einige Charakteristika genannt: den Sinn für klare Ordnung im Bildraum, für die Struktur des Körpers. Ein hohes Kraftbewußtsein strahlt von den Menschenkörpern dieser Kunst aus; was ihnen an geistiger Beweglichkeit abgeht, das besitzen sie an naturhafter Energie, an Straffheit, an Haltung.

Aufschlußreich ist der Vergleich eines Silberstaters von Elis-Olympia[4] (um 480) mit einem wenig früheren Elektronstater von Kyzikos,[5] beide mit einer laufenden Nike auf der Vorseite. Am augenfälligsten ist der Unterschied in der sachlichen Gestaltung: zielbewußt, von stärkstem Bewegungsimpuls getragen, der Lauf der elischen Nike — die Nike der Kyzikenermünze scheint nicht auf ein Ziel hinzustreben, ihr Lauf ist ohne Richtungsbewußtsein, im Schema befangen.

Hier sehen wir auch, wie verschieden ein Gewand behandelt werden kann: der Ionier formt es als stofflich selbständige Masse, die zwar den Körper hervortreten läßt — das ist Gebot des Zeitstils — doch nicht dessen Folie wird wie bei der elischen Münze. Auf ihr tritt der kräftig gebaute Körper mit großer Klarheit aus dem dünnen Chiton hervor.

In ihrem Impuls, im Zielbewußtsein der Bewegung erinnert die Nike an die Bronzefiguren zweier spartanischer Athletinnen.[6] Doch trennt diese die knappe, fast harte Modellierung, der noch festere Körperbau von unserem Stück, das wohl unter dem Einfluß der Schule von Sikyon entstand — dort werden Körper so frisch und füllig gegeben, dort hat man den gleichen Sinn für das Stoffliche eines Gewandes.

Ein weiteres Beispiel dorischer Stilart haben wir in den frühen Hemidrachmen von Heraia in Arkadien,[7] die um die Wende des

[1] Langlotz, Tf. 76.
[2] Regling, 172; *Traité*, pl. 56, 27 ff.
[3] Langlotz, Tf. 72, links oben.
[4] *Traité*, pl. 39, 7.
[5] Regling, 140; *Traité*, pl. 7, 1.
[6] Langlotz, Tf. 48.
[7] Regling, 83; *Traité*, pl. 37, 1.

sechsten zum fünften Jahrhundert geprägt wurden. Wir stellen ein Exemplar neben eine kleine argivische Bronze in Athen,[1] deren Kopf an allen Einzelheiten dem Herakopf gleicht: im ernsten, fast mürrischen Ausdruck, in der plastischen Abgrenzung der Teile, durch welche die Architektur des Kopfes stark verdeutlicht wird (für den Körper der Bronze gilt das Gleiche), in der strengen, die Geraden betonenden Fügung des Umrisses. Sicher haben Werke der Bildhauerschule von Argos die Stempelschneider der heräischen Münzen angeregt.

Athens Münzen haben nur in archaischer Zeit eine eigentliche künstlerische Entwicklung erlebt, nach 480 blieben sie auf einer pseudo-archaischen Stufe stehen. Die frühattische Münzprägung ist geteilt in die 'Eupatrid mint' und die 'civic and imperial mint' (Seltman). Diese Teilung ist nicht nur äußerlich, die beiden Gruppen unterscheiden sich auch stilistisch voneinander. Die Eupatridenmünzen sind in ihrer Aufmachung von den frühsten Prägungen der ägäischen Inseln abhängig. Eines der frühsten Gepräge, das Didrachmon mit dem Bukranion,[2] kann man gut neben den Kalbskopf am Kalbträger von der Akropolis[3] stellen, die Münze ist sicher auch in gleicher Zeit entstanden. Strenge Beschränkung auf das Wesentliche der Form ist aufs Glücklichste mit Zartheit und Lebendigkeit der Modellierung, mit dem Schwung der Kontur vereint: all dies sind wesentliche Elemente der frühattischen Kunst. Spätere Eupatridenmünzen halten sich streng an die Tradition der ersten Prägungen, ohne deren künstlerische Frische beizubehalten.

Die 'staatlichen' Münzen[4] hingegen, die bekannten γλαῦκες, befolgen zwar mit wenigen Ausnahmen genau den vorgeschriebenen Typus, doch halten sie Schritt mit der Stilentwicklung der großen Kunst. Bereits in ihren frühsten Beispielen manifestiert sich ein nur auf das Plastische gerichteter Formwille — oben schon, am Gegensatz zum ionischen Silberstater, haben wir die Eigenheiten dieses Stiles deutlich zu machen versucht. Oft genug geht hier die Plastik über die materiellen Möglichkeiten der Münze hinaus; in den meisten Fällen kann der Stempel gar nicht in seiner ganzen Ausdehnung und Tiefe ausgenutzt werden, sodaß die Kontur des Kopfes (und somit der Reliefgrund) nicht nur künstlerisch, sondern auch faktisch negiert ist. Der Ausdruck sammelt sich am Auge: nirgends im Dorischen oder Ionischen oder den sonstigen Provinzen griechischer Kunst findet sich ein Blick von solcher Spannkraft und solch

[1] Langlotz, Tf. 23, links oben. [2] *B.M. Cat. Central Greece*, pl. xxii, 5.
[3] H. Payne, *Archaic Marble Sculpture from the Acropolis*, pls. 2–4.
[4] Regling, 90–2, 182, 183; *Traité*, pl. 34, 12 ff.

geistiger Wachheit. Hier haben wir es mit bester attischer Kunstübung zu tun. Prof. Ashmole hat gezeigt, wie genau diese Münzen an dem in Dezennien meßbaren Fortschreiten der großen Kunst teilnehmen.

Wir kommen nun nach Nordgriechenland, dem Tummelplatz vieler Stämme und vieler Stile. Lang nachwirkende Rudimente des sogenannten orientalisierenden Stiles, in diesem Falle direkt von den ionischen Kolonisatoren eingeführt, finden wir in der Tierwelt und den Fabelwesen der Münzen von Aigai,[1] Abdera[2] und Akanthos.[3] Attisches klingt bei den frühen makedonischen Königsmünzen,[4] bei den Geprägen von Terone[5] und Neapolis[6] nach.

Eine spezifisch nordgriechische Stilbildung beobachten wir auf Münzen meist unbenannter thrakisch-makedonischer Stämme[7] (früher nach Thasos und Lete verlegte Silberstatere, Tetradrachmen der Bisalten, Derronen, Edonen u. A.). Die auf ihnen dargestellten Figuren haben schwere ausladende Formen, schwellende Muskeln, saftiges Fleisch. Silene mit ihren Mänaden, Hirten mit ihrem Vieh, Pferdetreiber, Bauern in Ochsenkarren usw. bilden die Münztypen. Es herrscht eine fröhlich-sinnliche Stimmung, wie wir sie auf Vasenbildern, vor allem auf den sogenannten caeretanischen Vasen kennen, mit welchen vielleicht ein stilistischer Zusammenhang besteht. Die Komposition zeigt eine weitgehende räumliche Staffelung. Die Figuren sind dicht aufeinander gedrängt, lassen dem Reliefgrund wenig Platz und füllen völlig das bisweilen durch einen dicken Perlkreis stark markierte Rund. In der engen Staffelung und der breiten, muskulösen Körperlichkeit besteht eine gewisse Ähnlichkeit zur Gigantomachie am Fries des Siphnier-Schatzhauses,[8] ein sicher nesiotisches Werk, das Langlotz einer Bildhauerschule von Chios zuweist. Es ist gut denkbar, daß dieser nordgriechische Münzstil unter dem Einfluß der Inselkunst steht.

Noch mehr sehen wir eine Vielheit an künstlerischen und geistigen Beeinflussungen beim griechischen Westen. In Sizilien und Großgriechenland wird die Münzkunst in besonderem Maße entwickelt und kultiviert, ja sie überflügelt in klassischer Zeit das Mutterland und strahlt auf dies zurück. — In Unteritalien bildet sich früh

[1] Regling, 226; *Traité*, pl. 49, 1 ff.
[2] Regling, 106, 228; *Traité*, pl. 56, 1 ff.
[3] Regling, 99, 212 f.; *Traité*, pl. 53, 3 ff.
[4] Regling, 347 f.; *Traité*, pl. 47, 5 f. und 48, 2.
[5] Regling, 215; *Traité*, pl. 52, 15.
[6] Regling, 216; *Traité*, pl. 55, 13 ff.
[7] Regling, 93–8, 194–206; *Traité*, pl. 44–6, 50, 55 (18 ff.).
[8] *Fouilles de Delphes*, iv, pl. 13 und 14.

schon, kurz nach der Mitte des sechsten Jahrhunderts, ein Sonderstil, eine Art κοινή, an der die Gepräge fast aller bedeutender Städte teilnehmen. Allen diesen Stateren von Sybaris,[1] Tarent,[2] Metapont,[3] Poseidania,[4] Kroton,[5] Kaulonia[6] usw. ist die Technik des incusen Rückseitenbildes und eine später nirgends wiederkehrende Sorgfalt beim Prägen gemeinsam. Die gleiche Organisation herrscht beim Bildaufbau: großzügig wird Figur und Schrift in das gegebene Rund hineingesetzt und ihm angepaßt, ohne sich ihm zu unterwerfen. Klarheit, Einfachheit und Kraft zeichnen diese Gepräge in gleicher Weise aus. Man ist berechtigt, hier von wahrhaft klassischen Lösungen zu reden.

Wohl sind im Einzelnen Unterschiede bemerkbar. Dorische Art zeigt sich deutlich an der strengen, mathematischen Gliederung des Dreifußbildes von Kroton und am muskulösen, straff gebauten Körper des Apollon der tarentiner Stateren. Ionisches kann man etwa bei der männlichen Figur der Stateren von Kaulonia bemerken: der Stand hat eine gewisse Unsicherheit, die Modellierung gleitet über die Angelpunkte des Körpers hinweg, und die Muskeln erscheinen wie aufgesetzt. Doch sind dies durch Einflüsse erklärbare, aber nicht stil-bestimmende Nuancen.

In Sizilien kommt keine derart gleichartige Entwicklung zustande. Allen Städten voran an Umfang und Reichtum der Prägung steht Syrakus. Um 530 beginnt man hier mit Münzen dorisch-orientierten Stilcharakters.[7] Die Quadriga auf der Vorseite der Tetradrachmen hat einen kantigen Umriß, Lenker und Pferde nehmen eine aufrechte, gestraffte Haltung an, und das in sich plastisch wenig gegliederte Relief steht stark vom Grunde ab. Auf der Rückseite sitzt ein streng gebauter Frauenkopf in einem vertieften Rund, welches in das geometrisch präzise viergeteilte *quadratum incusum* eingelassen ist. Dann wandeln sich die Typen, etwas später dringen ionische Stileinflüsse ein, nachdem man sich schon von früh an in der Haartracht nach ionischer Mode gerichtet hatte. An unserem zweiten Beispiel[8] ist typisch ionisch die Zartheit der Oberflächenbehandlung, die Differenzierung von Fleisch und Haar, die so bewußte Führung der Konturen, der weichliche Ausdruck. Neben solchen Stücken behauptet sich

[1] Regling, 110; *Traité*, pl. 67, 5 ff.
[2] Regling, 235; *Traité*, pl. 65, 1 ff.
[3] Regling, 238; *Traité*, pl. 66.
[4] Regling, 109, 239; *Traité*, pl. 68, 12 ff.
[5] Regling, 113, 242; *Traité*, pl. 69, 7 ff.
[6] Regling, 241; *Traité*, pl. 70, 14 f.
[7] Boehringer, a. a. O., 2 ff.; *Traité*, pl. 74, 2.
[8] Boehringer, 62 und 66 ff.; *Traité*, pl. 75, 1.

weiterhin eine kräftige dorische Richtung[1] — Boehringer nennt sie das 'Atelier mit der geknickten Nike' — deren Robustheit und Frische mit den genannten ionischen Geprägen nichts Gemeinsames hat. Zwischen beiden Schulen steht das Gros der Stempel, einer lokalen Schule angehörend, die von beiden Richtungen Anregungen empfängt, es aber nicht zu einer eigentlichen Stilbildung kommen läßt.

Als letztes Beispiel bringen wir zwei Drachmen der Stadt Naxos. Der ältere Dionysos,[2] wohl nicht nach 530 entstanden, erinnert stark an attische schwarzfigurige Vasen, besonders an Bilder des Amasismalers.[3] Auch in der Plastizität ist attischer Einfluß denkbar: wie auf den frühen Münzen Athens geschieht die Durchbildung des Ganzen mit rein plastischen Mitteln; die Gestaltung des Umrisses ist für den Künstler ein Problem sekundärer Wichtigkeit. Als Gegensatz stelle man sich nochmals den oben (S. 34) besprochenen Kyzikenerstater vor Augen. Auch hier tritt um die Jahrhundertwende eine 'Ionisierung' ein[4] — das Relief wird flacher, die Oberflächenbewegung zarter; der Kopf rückt in die Mitte und wird durch die jetzt klare und schön geschwungene Kontur mehr an den Grund gebunden.

Hier müssen wir schließen, mit dem Bewußtsein, viele Fragen, die sich nebenbei aufdrängten, unberührt gelassen zu haben. Vor allem mußten Bemerkungen, die den Zeitstil betrafen, und die eigentlich bei der Betrachtung von lokalen Stilelementen unerläßlich sind, unterbleiben. Aber diese Skizze will nicht mehr sein als eine erste, oberflächliche Sichtung, ein Versuch, der sich der Einseitigkeit seiner Problemstellung voll bewußt ist.

[1] Boehringer, 293 ff.; *Traité*, pl. 75, 3, 5 und 10.

[2] Regling, 112.

[3] z. B. Pfuhl, *Malerei und Zeichnung*, iii. 53, 220 (Amphora in der Bibliothèque Nationale).

[4] Regling, 247.

THE TECHNIQUE OF GREEK COIN DIES

STANLEY CASSON

THIS paper is solely concerned with the making of dies. The invention of stamped coinage was probably made at a certain time by a certain person or persons. The making of dies long preceded the stamping of coins. Therefore everything suggests that, when it was decided to stamp blanks of metal with devices, those wishing to make dies employed some at least of the available modes of die-making.

We ought, therefore, to examine any extant pre-coinage dies to see what information can be gleaned from them. Pre-coinage dies, as far as we know, are confined to those dies which were used not to strike metal, but to have metal hammered into them. That is to say, they rank only as anvil-dies. But there existed also pre-coinage punch-dies in the shape of dies used for the purpose of stamping inscriptions on metal. The nucleus therefore existed for the organization of die-making without the need to invent instruments and methods for the newly conceived process of coin-striking.

I propose to examine available evidence for (1) anvil-dies, (2) punches, and then to ascertain the relationship of die-making to gem-cutting and to tabulate provisionally the number of instruments which can be ascertained as in use by die-makers. Some of my evidence is direct, some inferential.

One preliminary consideration is of importance. Leaving hubs aside, and considering only the actual die used for the striking of a coin, it seems, as far as our evidence goes, that hard bronze was the material most favoured until quite a late date. The die of an Athenian coin discussed by Sir George Hill in his admirable paper in the *Numismatic Chronicle*, 1922, is of hardened bronze composed of 22·51 per cent. of tin and 69·85 per cent. of copper. This is roughly the alloy of modern bell-metal, and the fact that in the period to which this die is assigned (430–322) such an alloy is used helps to illuminate the suggestion recently put forward by Prof. Merritt,[1] on the evidence of new fragments of the inscription believed to refer to the Athena Parthenos, that in the making of that statue, for purposes of stability and patina, a similar alloy of some 30 per cent. tin was employed.

Of metal-dies two types only are known in Greece; one is the die

[1] *Hesperia*, v. 3, p. 371.

on which was cut a design to be imposed on a flat plate of metal which was either an ornament in itself or else a part of some other object. A silver or gold vessel might thus be made of various component parts some of which were at first flat plates on which a design had previously been impressed: or a flat plate of metal might also ultimately become part of a rectangular box; it might also remain

FIG. 1.

a mere rectangle, like a votive plaque, or end as an appliqué disk of oval or rectilinear shape. Such metal plates are known in Greece from Minoan times down to the end of the Classical period, and they are common on most Bronze Age sites in Greek lands, whether Minoan or not. A good example of late sixth-century date comes from Trebenishte (Fig. 1). But their technique varies. There is reason to think that Minoan and Mycenaean goldwork was not made by being stamped by a die but by being stamped *into* a die,[1] and the die seems to have been of stone. In brief, the metal sheet was beaten, by a long steady process, into the hollow die. In other cases the design may have been made by the use of a number of small dies which, together, made a composite design.[2] But little or no research has been carried out on this subject.

[1] See Bossert, *Altkreta*, 2nd ed., pp. 301 and 302, for examples. A new example of a die of classical times, similarly used, is the bronze matrix published by D. M. Robinson in *Classical Studies*, 1937, p. 306. For the Trebenishte example see B. D. Filow, *Die archaische Nekropole von Trebenischte*, pl. iii.

[2] Bossert, op. cit., p. 300.

The other type of metal-die is the coin-die, used by percussion to strike a design on to softer metal which may have been rendered still softer by heating.

A third type, which will not be considered here, is allied to the coin-die and differs from it only in purpose—that is the hall-mark. But hall-marks, or marks of authority and certificate, do not appear until Roman times, hall-marks proper in the modern sense of the term beginning in early Byzantine times.[1]

It is with the dies themselves rather than with their products that this paper is concerned.

In the case of gems so large a material, not of the products of gems —that is to say seal impressions—but of the gems themselves, survives that we have an enormous field for research; the original dies, if for the sake of our argument we can call them that, survive in vast numbers. The process of gem-cutting is thus not hard to analyse and can be established in great detail with considerable accuracy. The tool-box of the gem-cutter and his methods of cutting and polishing can be reconstructed from period to period and the changes of fashion noted and observed. But gem-cutting involves the process of removal of superfluous material from stone which is in every instance liable to splinter, fracture, or split, whereas the carving of a similar design on the metal surface of a die involves the removal of a material which does none of these things. It would, therefore, be misleading to draw an analogy between the making of designs intaglio on metal dies and the making of similar designs on carnelian, agate, chalcedony, and similar stones which form the usual stock-in-trade of the gem-cutter. The tool-box of the gem-cutter will resemble that of the metal-die cutter in some respects, but must of necessity contain some different tools; there will be a general similarity of tools, but each will possess some that the other does not and there will be divergences in the use of the tools they share in common. The two arts must therefore be separately considered, though there is little doubt that the artist who could make metal dies would be more competent at cutting gems (and vice versa) than any other type of artist we know of. Unfortunately our surviving evidence is insufficient to enable us to tell whether die-cutters and gem-cutters were in any particular case identical, for we have the names of some sixty gem-cutters

[1] See L. Matzulewitsch, *Byzantinische Antike* (Berlin, 1929), p. 102. It might reasonably be held also that the Cypriot sign stamped on an ingot of copper from Enkomi is an early instance of a hall-mark or assay stamp. See Murray's *Excavations in Cyprus*, p. 15, no. 1535.

of antiquity and only a handful of names of die-makers.[1] The latter all happen to be Sicilian Greeks, or at any rate to have worked in Sicily.

It can be safely presumed that the carving of coin-dies developed from the carving of dies used for ornamental metal plates or from the making of small punches which were used in composite designs on a metal plate. This assumption must be considered sound, since metal-work, made to bear designs by means of dies and punches, was fabricated in classical Greece from the Geometric period onwards, long before the earliest making of coins in Greece. The artist who could carve a die for such ornamental metal-work—which was usually of gold or silver—could equally well turn his hand to the making of coin-dies as soon as the demand for them began. Throughout the artistic history of Greece a maker of dies must always have been able to make both kinds.

Our analysis of the methods by which these dies were made is simplified by a fortunate discovery. There is a metal die,[2] found at Corfu, now in the Ashmolean Museum at Oxford, which has clearly cut devices on each of four sides (Figs. 2 and 3). It is made of bronze and measures 12·5 cm. in length, about 1 cm. in thickness, and 2·8 cm. in width. It is in perfect preservation and almost as fresh as when it was made. It shows little signs of use, and the fact that all four sides are cut with devices proves conclusively that it was never used, like a punch, for striking by percussion, for there is no single surface reserved for the blow of the striking hammer. The metal which was to receive the designs could only have been hammered into the decorated surfaces.

It is dated by Payne to the middle of the seventh century B.C. and is of pure Proto-Corinthian style; indeed, it was probably made at Corinth or else by a Corinthian in Corfu. It just precedes in date the earliest mainland coins and so shows us exactly the condition of die-making at a time when the knowledge and practice of coin-making was first reaching the mainland from Ionia. It thus serves as a particularly useful guide for the study of coin-dies of the next two or three generations.

So perfectly preserved is this die that we can establish without much difficulty the various tools and processes involved in its manufacture. Many of the objects depicted in the various scenes of the

[1] For a list of known gem-cutters see G. M. A. Richter, *Cat. of Engraved Gems in the Met. Mus. New York*, 1920, pp. xxxvi ff. Three names of die-cutters who may also have been gem-cutters are known—Phrygillos, Olympios, and perhaps Euainetos. See Hill, op. cit., p. 16.

[2] H. Stuart Jones, *J.H.S.* xvi. 323, and Payne, *Necrocorinthia*, p. 222.

four sides reappear in coin-types individually,[1] so that we can be sure that the artists of coin-dies were not coming to a wholly new adventure.

FIG. 2.

FIG. 3.

One side of the original ingot-shaped die is shown in Fig. 2 and casts of all four sides are shown in Fig. 3. The four sides are shown as A, B, C, and D.

[1] e.g. the hare on coins of Messana in the identical attitude; the dolphin also on coins of Messana; the owl on coins of Athens; the triton on coins of Cumae; the bull (in this attitude) has no exact parallel, but is common enough as a coin-type; the lion's attitude is repeated in that of the lion-chimera on coins of Sikyon. The swan, in this attitude, on coins of Clazomenae; the griffin on coins of Abdera and Teos; the cocks on coins of Himera (see below, p. 48). The stag, in this attitude, finds no exact parallel. Thus the hound, the strange human figure on the right of the triton, and the eagle (?) alone fail to appear on coins, 3 out of 14 creatures.

On A the fronds are cut on the graver's wheel, an instrument identical with that employed by the gem-cutter. That they are so carved, and not by means of a burin, is clear from the nature of the leaves on each side of the stalk. These leaves are rendered by straight lines which fade away at each end. This fading away, similar to the 'fading' seen on the conclusion of a gouge cut on stone,[1] is caused by the application of the small revolving cutting-wheel against the surface of the metal. It bites harder into the middle of the cut than at either end and so 'fades out' at each end. Had the lines been made by a burin one would have seen a sharp nick at one end of each small leaf, where the head of the burin dug in. The stems of the fronds are made in the same way. The graver's wheel is of the type of the wheels shown opposite p. 92 of Billing's plate in his book *The Science of Gems, Jewels, Coins and Medals*, published in 1867. I have preferred his drawings of tools to those to be seen elsewhere since he was writing of a living craft and was fully acquainted with its methods. To-day the art of gem-cutting is virtually dead, but in the early nineteenth century it was, if not artistic, at least efficient and extremely alive, especially in Italy. His list of tools is most informative.

The fact that the stems of the leafed fronds are thus made by the wheel and not by the graver's burin is proved by the fact that their straight lines are not always absolutely straight and that one can detect the varied pressure of the wheel as it was applied to the surface, cutting deeper here and shallower there. All the fronds on all four faces are similarly made. Clearer evidence of the graver's wheel is found on the ribs of the hunting dog on A, on the bodies of the owl and dolphin and the triton on B, on the neck of the ox, the mane of the lion, and, clearest of all, on the wings of the eagle (?) and the swan on C. On this same side also it is clear on the ribs of the boar (where it has been applied at an angle so as to produce a slight curve) and the stag, and on the wings of the griffin and the cocks. On the main scene D it is less used, being obvious only on the fronds and the horses' bits. The mode of working the guilloche bands seems to be different and it is the one element of the die-designs where uncertainty exists. I am inclined to think that a carver's burin was used here for the very clear and straight vertical lines of the border enclosing the guilloches, and that the guilloches themselves were similarly worked over long and carefully with the same burin. Comparison of the vertical lines of the guilloche borders with the vertical border lines of side C, particularly those at the beginning which contain a meander pattern, shows a radical difference of

[1] See my *Technique of Early Greek Sculpture*, p. 193.

treatment. The guilloche borders have been rubbed over repeatedly with a burin, to make them straight and even; those of the meander show the uneven and repeated pressure of the wheel.

Two tools are thus clearly distinguished, the graver's wheel and the graver's burin.

Next to be easily identified is the ordinary graver's drill. It can be seen best on the bodies of the animals on A, B, and C, and on the rosettes in the field on B, C, and D. Indeed, it is obvious everywhere. As a drill, its nature can be reconstructed without much difficulty from the impressions. It was obviously a drill with a smooth dull point. Its use should be also noted on the manes of the horses and the hair of the men.

It remains to discover how the deeper portions of the intaglio were achieved. The bodies of the horses are perhaps the deepest and largest areas to be excavated in the metal. Here Mr. Billing's plate of tools (or indeed an elementary knowledge of gem-carving) comes to our aid. The tool usually employed for the main excavation of a surface is one which ends in a button or knob-like projection. Let us call it for convenience the knob-drill. There can be many shapes and sizes of this instrument, to be used according to the depth required. The larger knob-drills will excavate a low flat area, the smaller will dig into deeper holes. Thus a transverse rotation of a small knob-drill cut the bowl of the tripod on D, the bodies of the birds on C, and of all the creatures on A and B. A larger knob was used for the trunks of the horses. It is worth noting how the artist has emphasized muscles and joints with small and large drills which are too small in themselves to be classified with our large excavating knob-drill, even though their points are blunt and knob-like.

It seems possible thus to identify three main types of drill:

1. The small fine drill used for the petals, for instance, of the rosettes in the field of D above and below the horse. The same drill was also used for the fine work on the horses' manes and tails, with slight pressure only.
2. The larger drill used for the centre of the rosettes throughout, and best seen by itself above the tripod-bowl and in the field between the forelegs of the horse on the left end of D.
3. The large knob-drill used for primary excavation just described.

There remains one other instrument, perfectly clearly identifiable. This is the compass, used for the circles in the field of C on the left end on an otherwise reserved space. Compasses of two sizes were used, for, as far as it is possible to reconstruct them, they were fixed tools, not adjustable. I conjecture their shape and structure to be as

shown in Fig. 4. Each of the compasses used here had a double cutting-edge and one central holding-limb. The interior detail of the upper rosette was, of course, cut by means of the drill, held at a slant to produce the oviform petals, and these were then finished off with a graver's wheel to give them outline. This wheel has left its clear and unmistakable traces.

We thus have the complete tool-box of the artist of this die. It consisted of:

I. A graver's wheel.
II. A small ordinary drill.
III. A larger drill of the same type.
IV. Two or more knob-drills.
V. A burin.
VI. A small compass.
VII. A larger compass of the same type.

From the analysis given it is clear that the wheel and the drills were the instruments which did most of the work. The compasses were clearly a luxury and not essential.

The order of use would have been roughly as follows. The knob-drill IV would have dug out the main figures, after they had been sketched on the surface with the wheel I and after the salient points had been indicated with the plain drill II or III. This is the procedure employed by Italian artists of the nineteenth century as described by Billings (p. 18). Then the detail was added by V, VI, and VII with the aid of I, which was especially useful for the borders and delimiting ornaments.

What is of great importance is that the whole tool-box, less VI and VII, is identical with that of any ordinary gem-cutter. VI and VII are found in the tool-box of the sculptor and architect,[1] and compasses were widely used by potters also. They are not exclusively the instruments of any one art, but in this form (Fig. 4) they are shared by the metal-worker, the sculptor, and stone-worker, and are not of much use to the gem-carver, in whose work they are nowhere apparent. But the appearance of the compass in the box of the die-maker is important, as will be seen presently. It remains to be seen now to what extent the makers of coin-dies added to the tool-box of the type used by this Corinthian-Corfiot artist, or whether any of his tools fell out of use later.

Unfortunately we have almost no examples of coin-dies of the Classical Greek period. The best preserved is a die of the reverse of an Athenian coin now in the Numismatic Museum, Athens. We

[1] See my *Technique of Early Greek Sculpture*, p. 215.

must work from the coins themselves. But in the light of the evidence from the die just discussed we can infer from coins a great deal as to the tool-box of the die-cutters in the Greek coin-making industry. I call it industry, since the production of coin-dies in any state was a continuous necessity due to the short life of an average die and the heavy and regular consumption of coinage. Although primarily an art, it had to conform to the necessities of industrial organization as no other branch of art did in antiquity.

I cannot pretend here to do more than offer a few notes on the manner in which coin-dies were fabricated, based on my previous analysis of the Corfiot die.

The main problem that worried all cutters of dies was how to render a circle. As I have already shown elsewhere,[1] this problem was accepted and dealt with courageously or else avoided by a compromise. In the case of small circles such as the Thetas and O's of inscriptions on coins the engraver either cut the circle by means of a slender drill or punch, which was manipulated carefully round one complete turn, or else he made a dotted circle first by means of touchings of the drill at right angles to the metal surface, and then cleared the circle so traced with the drill, used as in the first way indicated above. Athenian die-cutters in the late sixth and early fifth centuries always made their circles without this intermediary step. But in provincial issues[2] one finds not only the double method but also circles made completely of dots, simply because the artist was not sure of his ground and was taking no risks.

Rosettes, of course, are always done by means of the drill.[3] But the tools which must have been most used for all the major work are the burin and the knob-drill, the former for thin lines on hair, on the manes of horses and on crests of helmets, the latter for the deepening of areas on faces and bodies, and in the case of large objects.

The graver's wheel and the burin seem to have been in use in the earliest period of coin-making in mainland and western Greece. The coins of Himera of the sixth century show a technique almost exactly similar to that of the two cocks on side C of our Corfiot die. The same technique persists in Himeran coins into the fifth century.

Straight lines in inscriptions on coins are nearly always made by the drill, aided, perhaps, later by the burin. Usually the drill is pressed at right angles to the surface at the beginning and end of the

[1] *American Journal of Archaeology*, Oct./Dec. 1935, pp. 510 ff.

[2] *A.J.A.*, loc. cit., and Seltman, *Athens, its History and Coinage*, pls. vi and vii.

[3] As in an issue of Macedonia: Seltman, *Greek Coins*, pl. viii, no. 2; Svoronos, *Hellénisme de la Macédoine*, pl. 18 (17–19), where the rosette, similar to that of the Corfiot die, is the sole device of the reverse.

line and then run from point to point, so that there shall be no chance of it slipping at the beginning or end of the run. This is easy to detect on the coins of Athens, to take a good instance which can be easily studied.

The compass is widely used. The clearest examples are found in issues where the area of the die-design is to be confined within a circle. The coins of Cyrenaica, Tarentum, and Messana give the

FIG. 4.

clearest instances.[1] Here the compass with one cutting-edge similar to that used on the Corfiot die is used on the face of the die as the preliminary to the cutting of the design.

The mark of the stationary leg of the compass naturally disappears as the centre of the die is deepened by the design. The nature of this tool is indicated in the drawing (Fig. 4) which is a hypothetical reconstruction.[2]

Small circles within the design itself, like the circular disk of the ankh on early coins of Cypriot Salamis, or the wheels of chariots, as on the coins of Selinus,[3] are often made, not free-hand, but by compass. The mark of the stationary leg is clearly seen in the centre of the circle in each case. A very finely drawn interior circle, compass-made, is seen round the Arethusa head on the Syracusan Demareteia.

There remain two instruments which seem to have been used only on rare occasions and for particular purposes. These are: (1) the ring-punch; (2) the claw-punch.

The ring-punch appears as one of the punches used by the epigrapher of the gold Cypselid bowl (Fig. 5) of the mid-seventh century, in the Boston Fine Arts Museum. An earlier instance of its use is seen in the inscription on the bronze of Mantiklos in the

[1] e.g. *B.M. Cat. Cyrenaica*, pl. v, 13–21; pl. vi, 13, 15; pl. xv, 36, &c. *B.M. Cat. Italy* (*Tarentum*), nos. 185, 200, &c., *B.M. Cat. Sicily*, p. 79, nos. 34, 35, &c.

[2] The compass must have been solid and strong so as not to bend under pressure. The reconstruction here given offers two alternative types.

[3] E. S. G. Robinson, *Locker-Lampson Collection*, pl. vii, no. 83; *B.M. Cat. Cyprus*, pl. xxv, 13.

same museum.[1] It was made of a bar of iron of circular section: the bar was cut so as to give a clean surface, and the interior of this surface was then hollowed out so as to leave an external ring with a fairly sharp cutting-edge. Any form of circle, for inscription or for design, could thus be struck by its aid. Thetas, Koppas, and O's were all rendered by its means on the two inscriptions just referred to. But it could also be used as an element of design, and, as such, it

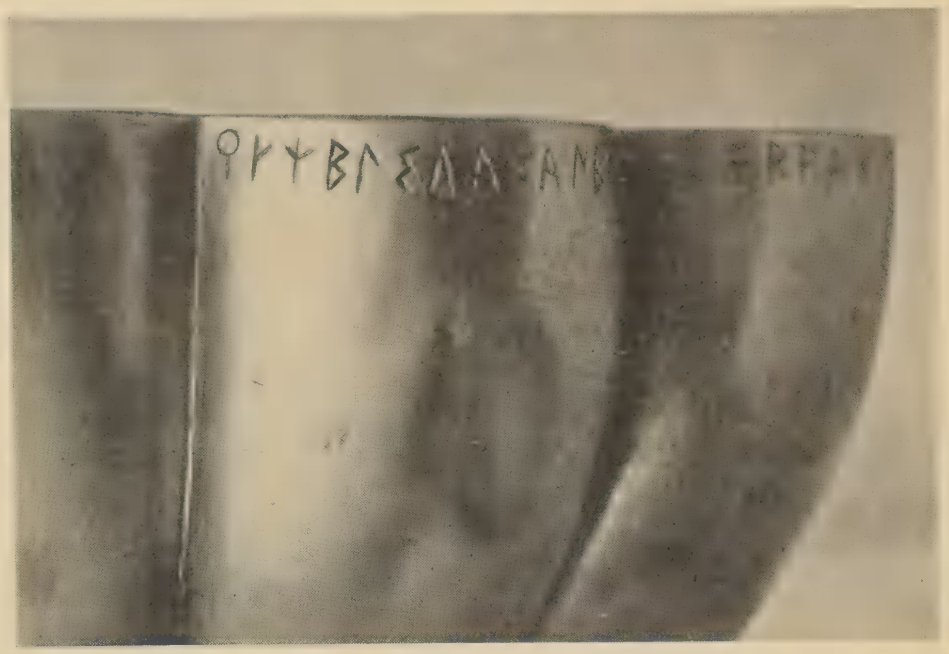


FIG. 5.

appears on the three coins of Thebes of the early fifth century shown on the right of Fig. 6. Here a ring-punch, with the interior surface of the ring adapted to make a Theta in the one case and a B in the other, has been driven separately into the middle of a die which made an incuse fan-shape on the reverse of a coin. In the case of the four other coins in the same illustration the actual die has been constructed so as to be itself a form of ring-punch. It is in effect a large ring-punch on the interior face of which a design of a wheel has been cut, with distinguishing letters added.[2] The ring-edge of the punch functioned as did the ring-edge of the punch used on the Cypselid bowl.

But the use of this instrument did not last long or spread far afield. I am unable to find any other certain instances.

So, too, with the claw-punch. This I take to be a tool shaped like

[1] See my paper in *American Journal of Archaeology*, 1935, pp. 510–17.
[2] *A.J.A.*, 1935, p. 512.

an ordinary chisel whose edge has been filed so as to give it teeth. It only seems to have been used at two places—Metapontum and Sybaris in Magna Graecia. In the early fifth-century coins of this city which have as a device the ear of corn it was used for making the antennae of the corn. It was struck on the die in the manner of a punch in a series of almost parallel slanting lines. This was the first element of the design to be struck. Then the ears of corn were

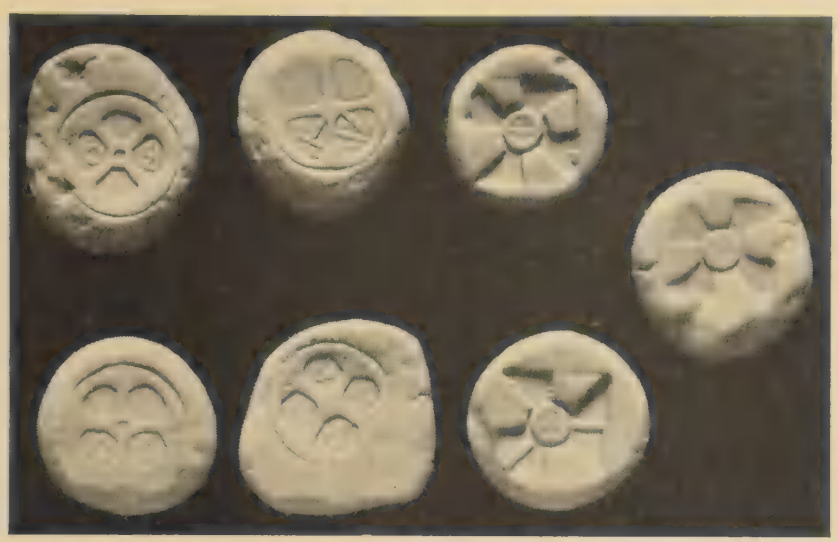


FIG. 6.

hollowed out and the superfluous parts of the lines made by the claw-punch were automatically eliminated. If these antennae-lines are closely examined with a powerful glass it will be seen that no other explanation of their making can be found. On the coins of Sybaris it seems that the same tool was used for the basis of the bull, but its use seems to be confined to these two cities, closely related in time and space. It must be considered as a local invention, confined to a small area of Magna Graecia, just as the ring-punch seems to be a tool in fashion only in Central Greece in the Archaic period.

Nor was it a local invention only, but it was a temporal invention, for the use of this claw-chisel is restricted to those issues of the two cities which fall into the late sixth and first half of the fifth centuries, those flat coins, remarkable for their incuse reverse designs, which repeat the cameo designs of the obverse.[1] When the next issues appear, no longer flat and thin, but of the normal type of the fifth century, the antennae of the ears of corn are rendered by a totally different process. Each antenna-stem is cut on the die with a graver,

[1] I am accepting here Dr. Hill's theory of 'hubbing' as the explanation of these dies.

after the ears of corn have been hollowed out. Along the side of each straight stem the minute nicks which were so easily rendered in the earlier issue by the teeth of the punch are rendered free-hand and show the irregularities which one would expect to see from such a process. The explanation of this change of method is simple enough. Tools like the ring-punch and the claw-punch were utilized to minimize risk. As the craft developed, die-cutters felt that these short cuts to safety were humiliating to their skill and preferred to work free-hand, just like the engravers of metal who emancipated themselves from the use of the ring-punch. And this emancipation led to a reversal of the order of processes in making the Metapontine dies: whereas the earlier die-cutters had made the antennae first and the corn-ears afterwards, so the later artists began with the corn-ears and ran their engraved antennae up to the edge of the cavity made by the corn. A close examination will reveal these engraved lines 'fading out' as they approach the corn or join on to the ears.

It is thus clear that, as far as a not very wide research into the technique of coin-dies will permit, the tool-box of the maker of coin-dies in Greece differed but little from that employed in the seventh century by the maker of the Corfiot die, which can be taken as typical of all such metal dies and not in any way unusual or eccentric. In the main the coin-die was cut by the aid of the same tools. But both tool-boxes differed slightly from that of the gem-cutter, although the two arts are closely connected.

UN BRONZO COLONIALE DI GIULIA MAMMEA PER MALLUS DI CILICIA

S. L. CESANO

È IL seguente da me acquistato per le collezioni numismatiche del Museo Nazionale Romano.

Fig. 1.

D. ΙΟΥΛΙΑ ΜΑΜΑΙΑ SEB busto diad. drapp. a d.

R. Μ . . . Λ . Ο COLONIA A . . . ΣΕ . . FELIX(?) S · C ·

La Tyche della città, tunicata, turrita, e con cornucopie, in piedi a d. sorreggente nella d. distesa una figurina (Anfiloco?); davanti a lei è in piedi Anfiloco, laureato, con clamide svolazzante ed alti calzari, che le accosta al capo una corona. Fra di essi, a terra, è un piccolo Marsyas; dietro ad Anfiloco è un cignale andante.

mm. 26–8. gr. 12, 80.

Il diritto è bene conservato e leggibile; sul rovescio all' incontro è sconservata la leggenda che è mancante, per difetto di coniazione, di alcune lettere, e perchè cade proprio sull' orlo superiore della moneta.

Questo medio bronzo al nome di Giulia Mammea, la madre di Severo Alessandro, per Mallos, si riaccosta, per il tipo della figurazione, al medaglione di Alessandro che ebbi già la opportunità di pubblicare altrove.[1] Entrambi i pezzi (Fig. 2)[2] commemorano la fondazione della colonia per opera di Alessandro, con una doppia figurazione individua, una scena movimentata, che, più complessa ed in parte realistica sul medaglione di tanto maggiore diametro, appare semplificata sul medio bronzo, dove però sono stati conservati gli elementi principali e più significativi: la Tyche ed Anfiloco, coi relativi emblemi e simboli, ed il Marsyas, e donde sono state eliminate

[1] *Atti e Memorie dell' Istituto ital. Num.* VIII, 1934, p. 207 seg.

[2] Riproduco qui anche il medaglione per l'opportunità della comparazione.

la figura dell' imperatore e la copia dei quadrupedi che segnano il *sulcus*, il limite della nuova colonia; la scena sul medio bronzo assume, cioè, carattere del tutto simbolico e religioso, avendo per attori esclusivamente i due personaggi divini.

Ancora Anfiloco dobbiamo riconoscere nella figura apollinea incoronante l'imperatore sul medaglione, dove i quadrupedi nascondono il particolare individuo degli alti calzari.[1]

Fig. 2.

La figurina del Marsyas, già offerta dall' imperatore alla Tyche all' atto della deduzione della colonia, la troviamo ora in piedi, come doveva apparire sulla piazza della nuova colonia, mentre Anfiloco, ora, incorona la Tyche della città cosi beneficata ed onorata dalla benevolenza imperiale.

I due pezzi appaiono usciti da due paia di coni incisi dalla stessa mano, e sono stati emessi evidentemente nello stesso momento.

Resta da notare l'ibridismo della epigrafia monetale per lo scambio delle lettere latine e greche nel nome di Mammea, come già sul medaglione nel nome dell' imperatore. Questo caso non è infrequente su tale genere di monete, dove non sono neppure rare le forme errate.

Nelle zecche di paesi eccentrici dell' impero, infatti, la tarda colonizzazione romana non potè indurre gli zecchieri — più soventi artisti indigeni incolti — nè tanto meno la popolazione, mista quasi sempre, ad una perfetta conoscenza della lingua ufficiale latina; devesi constatare più soventi il fatto contrario, perchè ivi i legionari romani, delle più varie provenienze, subirono l'influsso sia della lingua, sia dei costumi, sia della religione indigeni: vicendevole influsso dove il numero ha costantemente il sopravvento!

[1] Ragione per la quale non lo avevo identificato idoneamente.

Sotto questo punto di vista la moneta, documento ufficiale per eccellenza, è prezioso indice ancora troppo trascurato. È infatti importante annotare come la deliberazione già perseguita sino dalla metà del III secolo e perfezionata da Aureliano di chiudere anche le ultime zecche locali ed imporre a tutto l'impero la moneta scritta in latino, ha il suo maggior valore e significato non solo nella circostanza di aver realizzato la massima uniformità di circolazione monetaria, ma ancora nella conseguenza che la lingua latina dovette necessariamente imporsi e guadagnare terreno nella maggiore misura. È ancora importante annotare come questa moneta, scritta nella lingua di Roma, venne coniata e corse per secoli, anche dopo la caduta dell'impero di Occidente, in quell' impero orientale che prese il nome da Bisanzio, e dove solo 400 anni più tardi l'alfabeto greco comincia a riaffiorare con Giustiniano II nel nome di Cristo, i vocaboli greci ricompaiono nel titolo di *δεσπότης* per Leone IV, di *βασιλεύς* per Costantino V, di *βασίλισσα* per Irene; e dove la definitiva esclusione di quelle leggende miste di lettere greche e latine, di parole latine scritte con lettere greche e di parole greche tradotte alla latina, che sono per tanti secoli la caratteristica della moneta bizantina, si avvera soltanto al tempo di Romano IV, cioè nella seconda metà dell' XI secolo, mentre ancora Teodora si denomina: AVΓOVCTA.

DI DUE PICCOLI RIPOSTIGLI DI ARGENTI CARTAGINESI E DEI BRETTII

S. L. CESANO

(*Tavola VI*)

IL primo ripostiglio di cui devo trattare venne ritrovato i primi di Maggio del 1935, in un terreno del comune di Belmonte Calabro, provincia di Cosenza. Era contenuto in un vasetto di terracotta andato perduto. A quanto mi assicurò la persona che me lo consegnava a Roma, e dalla quale ebbi ad acquistarlo per le collezioni del Medagliere del Museo Nazionale Romano, comprendeva solo i 23 pezzi qui elencati e cioè:

n. 9 pezzi interi dei Brettii[1]
n. 9 mezzi pezzi dei Brettii
n. 5 dramme di tipo punico.[2]

Tutti i pezzi erano in ottimo stato di conservazione seppure ricoperti in buona misura da patina densa e scura che mi ha impedita la identificazione esatta di una delle dramme puniche.

Partitamente i pezzi sono i seguenti che descrivo sommariamente perchè a tutti noti e dovunque presenti anche nelle mediocri collezioni:

1–3 Eff. femm. diad. e velata a d. con scettro; simbolo della mosca.
R. ΒΡΕΤΤΙΩΝ Nettuno in piedi a sin.; simbolo: aquiletta su fulmine. Peso gr. 4·35–4·30–4·00 (media gr. 4·22). Tav. VI, 1, 2.

4–9 Busto alato della Vittoria a d. Simboli: fiaccola, cornucopie.
R. ΒΡΕΤΤΙΩΝ fig. maschile di fronte in atto di incoronarsi e con ramicello (?). Simboli: fulmine 1; timiaterion 4, serpente ed S, 1. Tav. VI, 3–4.
Peso gr. 4·70 (2); 4·60 (2); 4·50; 4·05 (media gr. 4·52).

10–15 T. di Pallade a d.
R. ΒΡΕΤΤΙΩΝ aquila su fulmine a sin. Simboli: timone 5; fiaccola 1. Tav. VI, 8.
Peso gr. 2·30–2·25–2·20–2·20–2·10–1·70 (media gr. 2·12).

16–18 T. di Apollo a d. Simboli: stella 2; calice.
R. ΒΡΕΤΤΙΩΝ Diana a sin. Simboli: granchio 2; crescente lun.
Peso gr. 2·25–2·20–2·05 (media gr. 2·16). Tav. VI, 7.

[1] *Brit. Mus. Cat. Italy*, p. 320, n. 8 segg. V. Head, *Historia Numm.*, 2. ed., p. 92, per le illustraz. Cfr. Garrucci, *Mon. Ital. ant.*, p. 183, n. 11 segg. Tav., J. Babelon, *Cat. Coll. Luynes*, 1. xxxiv. 655 segg.; *Sylloge Numm. Graec. The Lloyd Coll.*, iii–iv, London, 1934, tav. xviii.

[2] Müller, *Num. Afrique anc.* ii. 87, nn. 87 segg.

19–23 T. di Cerere a sin.
R. cavallo fermo a d. Nel campo superiore ureus (4); non visibile su di un es. per fallo di conio. Ad un es. sotto il cavallo, cerchietto. Peso gr. 3·80–3·70–3·55–3·54–3·40 (ossidato) (media gr. 3·60). Tav. VI, 5-6.

Il secondo ripostiglio proviene da Caulonia, e fu presentato nel 1915 all' Orsi che ne immetteva la metà nel Medagliere siracusano, mentre l'altra metà spettante al ritrovatore andava subito dispersa. Ivi io potei vederlo e studiarlo lo scorso anno. Constava verosimilmente di una ventina di pezzi, la cui metà salvata — 7 pezzi interi dei Brettii e 3 semidramme puniche — sono partitamente le seguenti:

1 Eff. femm. velata a d. Simbolo incerto.
R. ΒΡΕΤΤΙΩΝ Poseidon, nel campo: civetta.
Media conservazione, gr. 4·20.

2–3 Busto di Niche. Simboli: anforetta, gru.
R. ΒΡΕΤΤΙΩΝ figura maschile in piedi che si incorona; gr. 4 entrambi i pezzi (di media conservazione).

4–7 Altri 4 es. molto ossidati e illegg.; media gr. 4·12.

8–10 T. di Cerere a sin.
R. cavallo fermo a d. Tav. VI, 9–10.
B.c. media gr. 1·83.[1]

La composizione di questi gruzzoli non è nuova; essa è stata riscontrata però sino ad oggi, solo in un ricco ripostiglio, di Tiriolo (provincia di Catanzaro),[2] di almeno 731 pezzi, fra i quali si contarono: 373 argenti dei Brettii e 346 argenti punici e partitamente:

n. 239 pezzi interi col tipo della Niche;
n. 89 pezzi interi col tipo di Teti e Poseidon;
n. 27 mezzi pezzi col tipo di Apollo;
n. 18 mezzi pezzi col tipo di Pallade;
n. 343 dramme a tipi punici;
n. 3 semidramme a tipi punici.

Di questo grande ripostiglio abbiamo disgraziatamente solo notizie incomplete, certo insufficenti alla sua piena valutazione scientifica; nulla infatti sappiamo della conservazione dei pezzi, nulla delle probabili varianti che non dovevano mancare in tale massa di es. eguali. Comunque, con un poco di buona volontà, dalla abbondanza di simboli bene identificati sui pezzi dei Brettii e dalla circostanza che di essi solo una 50 non si poterono identificare 'per difetto di conio' — circostanza che si è verificata anche per uno degli es. del

[1] Id. l.c. n. 90 seg.

[2] *Notizie degli Scavi di Antich.* 1898, pp. 174 segg. *Rivista ital. Num.* 1898, p. 158 seq; *Num. Chron.* 1899, p. 261; Regling, 'Zur Münzprägung der Brettier, Festschrift Lehmann-Haupt', in *Janus*, i, 1921, pp. 81 segg.

ripostiglio di Belmonte — possiamo dedurre che la serie si presentasse in buona condizione; che poi tali fossero se non pure in ottimo stato di conservazione i pezzi punici lo prova la circostanza che il primo acquirente poteva subito rivenderli.[1]

Resta preliminarmente da osservare che la composizione di questi tre ripostigli calabresi risulta omogenea, seppure la percentuale dei vari nominali vari per la diversa entità dei singoli gruzzoli; sono cioè composti di due specie di monete di argento, due specie monetali, nei loro vari nominali. Ma queste specie non sono già omogenee, non si trovano fra di loro in un rapporto normale: sono dramme e semidramme di sistema fenicio (gr. 3·60–gr. 1·83), e pezzi interi e mezzi pezzi dei Brettii — denominati erroneamente 'ottoboli e tetroboli attici' — la cui media risulta rispettivamente di gr. 4·35–4·40 e gr. 2·15–2·16. Donde risulta che la dramma punica rappresenta i 3/4 del pezzo intero dei Brettii.

Annoto subito che tale risulta la relazione tra il denarius romano ed il vittoriato dai primi inizi della rispettiva coniazione, al 268 a.C.

È noto come poco si sappia della moneta di argento dei Brettii, perchè restano ancora allo studio il quesito cronologico che coinvolge anche quello della durata di questa monetazione, poi il quesito metrologico, mentre ci è sconosciuta inoltre la zecca coniante.

È pure noto che ancora meno sappiamo della serie a tipi punici che fa parte dei ripostigli qui studiati.

Tale nostra ignoranza dipende essenzialmente dall' aver noi avuto a disposizione sino ad oggi troppo scarsi elementi di giudizio, dato il numero minimo di ripostigli che si sono potuti studiare, salvati dal disperdimento sistematico cui va disgraziatamente soggetto questo prezioso materiale; siamo cioè nelle stesse condizioni che già al suo tempo deplorava il Müller.[2]

Voglio quindi augurarmi che questo mio breve lavoro non sia per essere del tutto inutile nè superfluo, anche se riassumerà le notizie che ci sono giunte di quei gruzzoli che comprendano in tutto od in parte anche minima, esemplari delle due serie che qui mi propongo di studiare, per tentare di desumerne elementi sicuri, se non per la definitiva soluzione dei problemi su enunciati, almeno per il più sicuro orientamento di questi nostri studi al riguardo.

[1] Cfr. *Notizie degli Scavi*, l.c.

[2] Il Müller a p. 141 e segg. scrive che tutti i tentativi fatti per datare le emissioni puniche e sistemarle per zecche non hanno sortito effetti apprezzabili. Limiti estremi per la produzione siciliana possono considerarsi: c. 400–241; per la produzione di Cartagine: c. 350–146; ma per la produzione sarda può solo annotarsi il 218 e per la produzione della Spagna il 206, cioè il momento della fine della coniazione punica.

Per quanto è a mia conoscenza, un solo ripostiglio di argenti dei Brettii è stato studiato sino ad oggi: il *gruzzolo di Rose* (provincia di Cosenza).[1] Composto di almeno 120 pezzi, comprendeva i due nominali più comuni nelle quattro emissioni; ed era quindi da esso assente il pezzo più raro — con il doppio tipo dei Dioscuri — che esula dagli altri pezzi per tutte le sue caratteristiche tipologiche e metrologiche e per la sua insigne rarità.[2]

Egualmente un solo ripostiglio è noto composto esclusivamente di argenti a tipi punici, affini a quelli qui studiati: è *il gruzzolo di Licata*,[3] in provincia di Agrigento, composto di almeno 190 pezzi, tutte dramme.

Poche monetine a tipo punico — 1 dramma e 5 semidramme — si rinvennero in un ripostiglio composto nella maggior misura di argenti tarentini e metapontini di età annibalica, rinvenuto proprio *a Tarentum*.[4]

Infine un solo esemplare della semidramma a tipo punico si rinvenne in un ripostiglio ritrovato *a Selinunte*, composto di almeno 467 piccolissimi argenti a tipo punico: protome equina)(palma.[5]

Riassumo dalle relative relazioni pubblicate quei dati e quei particolari che più mi appaiono interessare la mia ricerca.

Nulla di importante ci dice il ripostiglio di ROSE, di argenti dei Brettii, se non che: di contro a 104 pezzi interi dei due tipi, erano mescolati solo 4 mezzi pezzi dei due tipi, di Apollo e di Atena; che mentre i primi danno una media di gr. 4·32–4·33, i secondi pesavano giusto gr. 2 ciascuno. Nella relazione viene ancora annotato che tutti i pezzi erano coperti di patina nerastra e di profonda ossidazione; che 1/4 del gruzzolo era in buona conservazione e che i pezzi meglio conservati pesavano intorno a gr. 4·50, laddove il maggior numero degli altri pezzi restava al di sotto di questa media.

Ben più interessante si presenta il ripostiglio di LICATA (centro a 49 chilometri da Agrigentum), per il quale abbiamo una buona relazione per quanto sommaria dell' Orsi. Era esso costituito esclusivamente di dramme a tipo cartaginese, di ottima, buona e media conservazione, che tutte ripetono lo stesso tipo; (t. di Persefone a sin. e cavallo stante a d. sormontato dall' ureus o disco radiato) e che mostravano un certo numero di varianti sia nella acconciatura delle chioma femm., sia nell' emblema o simbolo del rov. dove talora sotto il cavallo è un cerchietto (diam. mm. 18–20; peso gr. 3·20–3·70).

[1] *Rassegna Num.* 1914, pp. 1 segg., Regling, o.l.c. p. 85.
[2] Regling o.l.c. ne cita solo 15 es.
[3] Orsi, *Rivista ital. Num.* 1900, p. 90 seg.
[4] M. P. Vlasto, *Num. Chron.* 1909, pp. 1 segg.
[5] *Notizie degli Scavi*, 1877, p. 19, 71.

Da questa relazione si desume innanzi tutto che vi erano rappresentate un certo numero di emissioni caratterizzate sia dalla presenza o mancanza del cerchietto al rov., sia dalle varianti della capigliatura femm. del diritto, sia dallo stato vario di conservazione dei pezzi.

Di questo gruzzolo ho ritrovato 4 es. nel medagliere siracusano, di gr. 3·70, 3·50, 3·40, 3·20. Tav. VI, 11–13.

Il ripostiglio di Tarentum è il solo di cui abbiamo una completa descrizione. Esso consta di 94 dramme e 2 mezze dramme tarentine, di 10 dramme e 2 mezze dramme metapontine, di 1 dramma e 5 semidramme puniche; un totale di 114 pezzi, che rappresentavano solo due nominali, il maggiore di gr. 3·73–3·58 di media ed il minore di gr. 1·94–1·78. L'interesse che presenta per noi questo gruzzolo, che risale all' età annibalica, sta nella circostanza di presentarci i due nominali a tipo punico quali due varianti, che possiamo bene valutare nella illustrazione, dei pezzi del nostro ripostiglio di Belmonte Calabro; sono varianti nello stile della capigliatura della effige femminile che accennano ad emissioni posteriori a quella di Belmonte.[1] Il ripostiglio cioè conferma quanto era detto, ma non potevamo apprezzare convenientemente, di quello di Licata e quanto possiamo solo presumere per quello di Tiriolo.

Sotto un altro punto di vista si presenta di speciale interesse il ripostiglio di Selinunte, del quale abbiamo una chiara ma sommaria notizia del Fiorelli. Si rinvenne nel muro di una costruzione di epoca posteriore alla distruzione di Selinunte — avvenuta come si sa nel 409 proprio per opera dei Cartaginesi, — e distante 14 metri dal tempio dei Tindaridi.

In un vaso cilindrico di piombo erano 467 piccolissime monetine di argento così bene conservate che parevano allora uscite dalla zecca, e tutte con gli stessi tipi (protome equina) (palma);[2] dice la relazione: 'una sola era un poco più grossa e presentava una testa femm. coronata di spighe ed il cavallo in piedi'. Evidentemente doveva trattarsi della semidramma punica di cui sopra. L'importanza del gruzzolo sta infatti nell' accoppiamento delle due specie di monete, della semidramma cioè e di quel nominale inferiore che dobbiamo identificare o almeno tentare di identificare.

A tale scopo credo opportuno accostare al gruzzolo selinuntino un altro simile gruzzolo, ritrovato a *Trapani*, di cui ebbi la fortuna di rinvenire una piccola parte nel Medagliere siracusano, un gruppetto

[1] *Num. Chron.* 1909, Tav. I, nn. 12–13.

[2] È il pezzo descritto dal Müller o.c. p. 92, nn. 130. Sono piccoli argenti di gr. 0·70–0·59; di un es. citato in nota (dal Cat. de Gaillard, 1859, n. 660) è detto 'trovata a Palma'.

di 11 monetuzze di argento simili a quelle sudescritte, con gli stessi tipi, che di quel ripostiglio rappresentavano un misero avanzo, ivi entrato nel 1925. Tav. VI, 14. La media di peso di questi 11 es. mi risultò di gr. 0·69–0·70. Questo avanzo di tesoretto mi arrecava dunque un doppio dato di fatto, sia colla sua localizzazione, sia per il peso dei pezzi che mi risultano essere 1/5 della dramma punica, quindi la sua LITRA. E non credo di presumere troppo nell' identificare, sino da oggi, in questa triplice serie, i tre nominali che ebbero corso sull' isola dal momento in cui ebbe ivi luogo la sospensione della emissione del tetradramma siculo-punico, riconoscendovi insieme con la dramma e la semidramma anche la litra, che i Cartaginesi si erano adattati a coniare abbondantemente dal momento in cui tale nominale era stato adottato quale base del sistema monetario dalla maggiore zecca dell' isola, la zecca siracusana.

Per quanto io so, nè le serie puniche nè quelle dei Brettii si rinvennero sino ad oggi accoppiate ad altre serie monetali sicule od italiche.[1] Riassumo nelle specchietto aggiunto i dati desunti dai ripostigli noti e qui studiati.

	Bretti: pezzi interi	*Bretti: mezzi pezzi*	*Cartagine: dramme*	*Cartagine: semidramme*	*Cartagine: litre*	*Vari*
Belmonte Calabro .	9	9	5	..	..	..
Caulonia . .	7 (+7?)	..	..	3 (+3?)	..	..
Tiriolo . .	239+89	27+18	343	3	..	..
Rose . . .	104	4	..	..	..	..
Licata . . .	..	..	190	..	..	..
Tarentum . .	..	..	1	5	..	Tarent. 94+2 Metap. 10+2
Selinunte . .	..	..	..	1	467	..
Trapani . .	..	..	..	..	11+?	..

Per la nostra tesi si presenta preziosa la provenienza dei succitati ripostigli da Selinunte, da Trapani, da Licata, cioè dalla regione occidentale che fece parte del dominio cartaginese sino all' ultimo momento della presenza dei Cartaginesi sull' isola siciliana. Da tale localizzazione si può sino da oggi dedurre che ivi fosse la zecca coniante, la quale resta ancora incerta, seppure non si preferisca localizzarla in Panormus, che cadde in mano dei Romani nel 254.

[1] Di circa 50 gruzzoli di monete puniche o punico-sicule di ogni metallo annotati dal Noe nel volumetto dedicato alla Bibliografia del Ripostigli di monete greche (n. 25 dei *Numismatic Notes and Monographs*, 1925, New York) soltanto i qui studiati ripostigli comprendono gli argenti dei quali trattiamo.

Ma solo altri ritrovamenti e la visione e lo studio delle ricchezze inedite e sconosciute del medagliere palermitano potranno illuminarci in proposito.

Oggi possiamo ancora constatare come queste serie puniche, dopo aver circolato sull' isola, giungano, in un momento imprecisato, sulla penisola italica, e si aggreghino alle serie dei Brettii, con una evidente preferenza, le cui ragioni ancora ci sfuggono ma che dovettero essere di carattere prevalentemente politico, ciò che potrebbe essere confermato dalla somiglianza delle serie enee dei Brettii con quelle coeve dei Lucani e persino dei Mamertini di Sicilia. Si spiegano così i ripostigli di Tiriolo, di Caulonia, di Belmonte Calabro, tutte località della regione dei Brettii, dove vuolsi localizzata la loro zecca. Ed ancora giungono, ma in minimo numero ed in ritardo, sino a Tarentum, proprio al momento in cui, per opera di Annibale ivi presente, devesi riconoscere un predominio dell' elemento cartaginese che si manifesta a noi così nel campo della monetazione come in quello della circolazione di quella regione.

L'argento a tipi punici presenta una evoluzione stilistica rimarchevole nella testina femminile, che accenna a numerose emissioni che dovrebbero estendersi per un periodo di tempo piuttosto lungo. Si è creduto di segnare l'ultimo termine desumendolo proprio dal ripostiglio di Tarentum, e di fissarlo, cioè, all' età annibalica. Il minimo numero dei pezzi punici di contro alla massa dei pezzi tarentini contrasta a tale asserzione, perchè è sicuro indizio cosi della lontananza della zecca punica da Tarentum come anche della data di emissione che deve precedere quella della serie tarentina e quindi risalire di qualche decennio almeno. Se invero l'emissione punica del ripostiglio tarentino fosse coeva alle emissioni locali e metapontine che costituiscono il grosso del ripostiglio, avremmo dovuto trovarne ivi una percentuale ben maggiore; e tanto maggiore poi se la zecca punica fosse ivi localizzata, come pure è stato asserito.

Il numero veramente grande di pezzi punici — es. 346 — rinvenuti nel gruzzolo di Tiriolo, insieme a 373 argenti dei Brettii ha suggerito al Regling — che considera le serie dei Brettii coniate tutte nel decennio 282–72 a.C. — la ipotesi che le serie puniche fossero più tarde di queste, cioè del periodo seguente la I guerra punica, se non già dell' età annibalica. Disgraziatamente dalle sommarie descrizioni che ne abbiamo nulla ci viene detto dello stile nè delle varianti nè della conservazione dei pezzi; comunque, l'essere il gruzzolo costituito in parti eguali di pezzi dei Brettii e punici parla a favore della contemporaneità sia di coniazione sia di corso delle due serie. Come spiegare altrimenti cosi grande numero di pezzi dei Brettii se il loro

nascondimento dovesse discendere ad alquanti decenni più avanti dalla data della loro coniazione?

D'altra parte come spiegare questa monetazione che vuolsi, diciamo pure, annibalica? Come, quando e dove avrebbe Annibale coniato queste ricche serie puniche? chi avrebbe a lui fornito il metallo? Forse le sue miniere di Spagna? o i Lucani o i Brettii suoi alleati ed amici certo non ricchi nè generosi? E come spiegare il ripostiglio di Licata?[1] Ad Annibale viene attribuita con molta verosimiglianza una sola moneta, di oro pallido, coi tipi del bifronte giovane imberbe e la quadriga,[2] che sono una trascurata imitazione, per non dire deformazione, dei tipi del quadrigato romano, e che stilisticamente resta ben lontana dall' argento punico del ripostiglio di Tarentum che non può essergli contemporaneo; se l'elettro è annibalico non lo può essere questo argento. Già il Müller ebbe a citare un importante passo di Livio[3] dove è detto che 'l'argento che i Cartaginesi, secondo i patti della pace che pose fine alla II guerra punica, portarono per la prima volta a Roma in pagamento, si componeva di un quarto di metallo inferiore, onde venne rifiutato dai questori'. E ne desunse che tale era l'argento di cui i Cartaginesi si servivano per le loro monete in quel periodo; tali monete infatti ci sono giunte. Le nostre serie all' incontro sono di buon argento.

Se i dati desunti dai ripostigli noti sino ad oggi parlano, come a me pare, a favore di una coniazione siciliana dei nostri pezzi punici, che deve essere datata a quel periodo che segue immediatamente alla sospensione della emissione dei noti tetradrammi siculo-punici, da questi dati deriva ancora una conferma alla teoria del Regling riguardo alla datazione dell' argento dei Brettii.

[1] Non posso accettare, a proposito di questo gruzzolo, la spiegazione dell' Orsi che scriveva: 'Siccome l'emissione di tali dramme coi loro multipli viene assegnata al periodo che intercede fra la I e la II guerra punica, nè da altra parte è credibile che nella provincia romana di Sicilia, costituita nel 241, avesse corso legale su larga scala il numerario cartaginese estremamente raro nelle parti orientali dell' isola costituenti il regno di Gerone, cosi tutto induce a credere che il peculio di Licata sia stato importato durante la seconda guerra punica, quando i Cartaginesi sbarcati in forza sulla costa meridionale (c. 213) fecero centro delle loro operazioni Agrigentum, la cui presa avvenuta nel 210 pose fine per sempre all' intervento punico ed alla libertà greca. Una delle tante fazioni di quella guerra, durata 4 anni, avrà provocato il nascondimento del tesoretto.' (*Rivista ital. Num.* 1900, p. 91.)

[2] Percy Gardner, *Num. Chron.* 1884, pp. 220 segg.; G. F. Hill, *Historical Rom. Coins*, 1909, p. 50, n. 28; Head, *Historia Num.*, II ed., 1911, pp. 35, 881; Bahrfeldt, *Riv. Ital. Num.* 1900, p. 78; Haeberlin, *Zeitschrift f. Num.* xxvi, 1907, p. 271, Tav. I, 12; Bahrfeldt, *Röm. Goldmünzenprägung*, 1924, pp. 20 segg., Tav. II, nn. 18–22.

[3] Liv. xxxii. 2: 'Carthaginienses eo anno argentum in stipendium primum Romam advexerunt; id quia probum non esse quaestores renunciaverant, experientibusque pars quarta decocta erat, pecunia Romae mutua sumpta, intertrimentum argenti suppleverunt.'

L'A. ha sostenuto[1] che tale monetazione devesi contenere all' incirca in quel decennio che intercede tra il 282 e il 272 o al più tardi il 268. Riassumo dallo studio del grande Maestro, da poco scomparso, i dati che più interessano la nostra ricerca e suffragano la sua teoria. Primo fra tutti è l'elemento tipologico che riaccosta le monete dei Brettii alle monete di Pirro, la cui data di coniazione a nessuno verrà in mente di contestare.

È innegabile che l'effige di Poseidon dell' oro e quella di Zeus dei bronzi si assomigliano allo Zeus del tetradramma di Pirro e della didramma affine di Locri; che la figura femm. su cavallo marino è affine a Teti sull' ippocampo con le armi di Achille della didramma di Pirro; che la Niche in biga della semidramma di oro ripete quella dell' oro siracusano di Pirro; che la effige di Atena del piccolo argento ripete quella dello statere aureo siracusano e di Pirro; che il guerriero che assale e l'Atena andante ripetono lo stesso motivo, derivando entrambi dallo schema del Leucaspis della dramma siracusana, secondo il mio parere.[2]

Aggiungo per mio conto che la testa di Marte barbuto si avvicina evidentemente al Leucippo di Metaponto; l'Ercole imberbe è imitato dai tetradrammi alessandrini e dall' oro di Tarentum; la testina di Apollo nella dolce espressione e nella acconciatura dei capelli fluenti sul collo ripete lo schema dagli elettri siracusani e si riaccosta all' argento romano-campano ed al bronzo di Neapolis; l'aquila del bronzo, che ripete il tipo dei Mamertini, si riaccosta a quella siracusana per il movimento delle ali semiaperte che conferisce al rapace un individuo atteggiamento quasi aggressivo.

Quanto allo stile dei pezzi, il Regling ha bene annotato che la forza ed il pathos dei due tipi di Poseidon, barbato ed imberbe, di Eracles, di Ares sono quelli dello Zeus di Locri, dell' Achille di Pirro, effigi che contrastano con i tipi poveri di espressione e di sentimento delle più tarde monete anche di Siracusa. I Dioscuri, la Niche, Tetide, Atena, Artemide, Persefone dei Brettii sono stilisticamente parallele alla Atena, alla Artemide, alla Persefone degli aurei e degli argenti di Pirro, del tridrammo siracusano di Iceta, laddove loro resta inferiore tutta la monetazione siracusana dalla metà del III sec., quella di Roma e di Tauromenium, ed in misura anche maggiore le serie di età annibalica di Tarentum, dei Lucani, di Metapontum, di Cartagine: monetazione dalle forme schematiche, a basso rilievo, che peggiora verso la fine del secolo.

[1] Regling, o.l.c.

[2] Oltre alle opere citate a p. 56 n. 1 per le illustrazioni, cfr. ancora Head-Hill, *Guide to the principal Coins of the Greeks*, London, 1932, Tav. 37.

Tutto ciò devesi annotare con quel senso di relatività che viene giustificato dal fatto che la moneta dei Brettii è produzione di un popolo indigeno, da poco assurto ad un certo livello del viver civile, il cui senso estetico ed artistico non aveva tradizioni, ma che mostra di avere bene conosciuto e saputo apprezzare convenientemente l'arte monetaria del suo tempo cosi da farne il prototipo per la sua produzione, che, pure nella imitazione, ha conservato peculiari caratteristiche individue evidenti. In questa monetazione annotiamo vivacità di movimento e di espressione, snellezza e complicazione di atteggiamenti, varietà di acconciature delle effigi femminili e maschili, e senso realistico di vita che anima la figura umana e quella dell' animale, sia esso l'aquila, o il granchio, o il cane ecc. seppure il disegno sia prevalentemente lineare ed il rilievo poco sentito.

Non ci può dunque sorprendere la stabilità tipologica e la omogeneità di stile delle monete dei Brettii malgrado la grande massa di pezzi giunta sino a noi, dove i simboli numerosi sono da considerarsi altrettanti contrassegni dei coni usati per la coniazione.[1]

Poche parole intorno alla questione metrologica. Dal Müller in poi tutti hanno riconosciuto nei due nominali superiori dell' argento punico qui studiato la dramma e la semidramma di sistema fenicio, dal peso medio di gr. 3·82.[2] Io loro ho aggiunto la piccola *litra*, riconoscendola in quel minimo nominale dei ripostigli di Selinunte e di Trapani, che pesa proprio un quinto di tale dramma e che il Müller non ha precisamente denominato.[3]

Quanto alle serie dei Brettii devonsi distinguere due gruppi: l'argento col doppio tipo dei Dioscuri, la cui media di peso dei pochi es. noti (poco più di 14) è risultata di c. gr. 5·68. Questo nominale viene denominato dal Regling e dagli altri AA. 'ottobolo attico'.[4] È questo un nominale strano, che trova il suo parallelo solo nell' argento meno raro di Pirro (media di 78 es. gr. 5·53), nel pegaso-statere di Gerone di Siracusa del 270–65 (media di peso di 17 es. gr. 5·50), nel pegaso-statere di Tauromenium (denominato appunto 'ottobolo' dall' Head),[5] infine nei rari argenti di Cirenaica attribuiti al IV periodo della monetazione (308–277), che l'A. del Catalogo del Museo Britannico conosce in tre es., del peso di gr. 5·75–5·51.[6]

[1] Nel grande ripostiglio di Tiriolo si contarono almeno 17 simboli vari e variamente accoppiati per il tipo Teti-Nettuno; n. 50 tra simboli e lettere per il tipo della Niche; 3 simboli sul pezzo di Pallade e 5 su quello di Apollo.

[2] Head, o.c. p. 879.

[3] Müller, o.c. ii, p. 92, n. 130, ne dà alcuni es. di gr. 0·70–0·59 che denomina dubbiosamente pezzo da oboli fenici *uno e mezzo*.

[4] Regling, o.l.c.

[5] Head, o.l.c., s.v.

[6] *Brit. Mus. Cat. Cirenaica*, pp. 56 n., 266–8, e pp. cxviii e cclvi seg.

Gli altri due nominali conosciuti in doppia emissione, vengono ancor essi abusivamente ed estensivamente denominati di solito 'ottoboli' e 'tetroboli', ma erroneamente; più ponderatamente il Regling[1] dice che non si attenta a denominarli, non risultandogli nemmeno chiare le relazioni fra i vari nominali; e non si pronunzia nemmeno lo Head;[2] il Giesecke all' incontro[3] vorrebbe riconoscervi altrettanti *denari e quinari di peso pieno*, coniati dai Brettii, per concessione di Roma, *dopo* la loro sottomissione completa, cioè dopo il 269 a.C.

Non posso accettare tale designazione cronologica, poichè, insieme col Regling e coll' Haeberlin, sono di avviso che, dopo la soggezione definitiva di questo, come di ogni altro popolo, a Roma, nessuna moneta di oro e di argento potè dai soggetti essere coniata. La moneta dei Brettii, di argento e di oro — che sono contemporane — potè essere coniata solo in quel periodo che il Regling ha definito, cioè nel decennio 282–72 a.C. Che poi si tratti di un sistema affine a quello del denarius romano — che cronologicamente segue a questa monetazione, a Roma — non sono aliena dall' ammetterlo, sistema basato sullo scrupulo che non doveva essere sconosciuto ai popoli meridionali, quando Roma ne fece la base della sua monetazione campano-romana; nei due nominali dei Brettii possiamo quindi rinconoscere due multipli dello scrupulum, che ritroveremo poi a base di quella effimera monetazione di Tarentum e di Metapontum dell' età annibalica[4] che si riaccosta al peso cosi del vittoriato romano, come a quello della dramma fenicia, di cui i nostri ripostigli ci hanno conservato gli esemplari.

Ho creduto opportuno attardarmi nell' esame e nella illustrazione di questi due poveri tesoretti, allo scopo di apportare il mio contributo di studio e di esperienza intorno ad un materiale che fa parte di quella monetazione del III secolo a.C. delle zecche della Magna Grecia e della Sicilia, che è stata sinora quasi del tutto trascurata. Lo studio di questo materiale appare all' incontro più urgente che mai, per l'apporto che da esso dobbiamo aspettarci alla delucidazione di quel problema cronologico riguardante la prima monetazione romana che in questi ultimi anni è stato nuovamente sottoposto ad una particolare revisione; la quale avrebbe dovuto e potrebbe apparirci perlomeno superflua, dopo che per opera dei numismatici più insigni dell' ultimo cinquantennio — alcuni dei quali sfortunatamente non sono più fra noi, — ad esso si era data quella più sicura, più logica,

[1] Nel Catalogo della *Collez. Warren*, 1906, p. 91, n. 131 seg. e poi ancora in *Münzprägung* citato.

[2] o.l.c., s.v.

[3] *Italia Num.* 1928, p. 133.

[4] Cfr. Vlasto, o.c., passim.

storica e giuridica soluzione, che pareva dover soddisfare tutte le più difficili esigenze scientifiche.

Gli inizi della monetazione romana sono infatti strettamente connessi con questa ultima monetazione, durata di poi sul suolo italico sino a quel drammatico periodo annibalico, cui oggi si tende dare una importanza che forse non ha mai assunto in realtà sotto il punto di vista monetario.

Comunque, mentre mi riserbo di esporre i risultati del mio esame sistematico ed oggettivo, su queste nuove teorie in un prossimo studio dedicato espressamente all' argomento, che è arduo, complesso, ma che ci appare di primissima importanza, colla illustrazione dei ripostigli qui studiati mi lusingo di aver apportato alcuni elementi di giudizio non trascurabili nella ulteriore revisione di quelle teorie.

WIRTSCHAFTSHISTORISCHE BEITRÄGE ZUR KLASSISCH GRIECHISCHEN UND HELLENISTISCHEN MÜNZHORTSTATISTIK

FRITZ M. HEICHELHEIM

SEIT dem Erscheinen der äußerst wertvollen, wenn auch hier und dort nicht ganz vollständigen Schrift von Sydney P. Noe, 'A Bibliography of Greek Coin Hoards', *Numismatic Notes and Monographs*, xxv (1925) ist, wie gestern abend Sir George Macdonald so lichtvoll ausgeführt hat, die Münzhortstatistik für griechische Prägungen in ein neues Stadium getreten. Untersuchungen, wie sie für die Statistik römischer Horte in wirtschaftshistorisch ertragreichster Form schon oft ausgeführt worden sind — erinnert sei unter vielen nur an Namen wie Grueber, Babelon, Bolin, Mattingly, J. G. Milne, Regling — sind erst von diesem Zeitpunkt an mit das Gesamtgebiet umfassender Sicht auch hier möglich geworden.

Ich selber habe nach Hinweisen in *Phil. Woch.* xlix (1929), 1581 ff. in einem Aufsatz: 'Die Ausbreitung der Münzgeldwirtschaft und der Wirtschaftsstil im archaischen Griechenland', *Schmoll. Jahrb.* lv (1931), 229 ff., bes. 239 ff. zum ersten Male versucht, die große Bedeutung dieses neu für die Forschung bereitgestellten Quellenmaterials für die infolge eines bedauerlichen Quellenmangels leider oft so problematische Wirtschaftsgeschichte des 6. Jahrh. v. Chr. aufzuzeigen. Im Rahmen dieses kurzen Vortrags ist es meine Absicht, ohne erschöpfend sein zu können oder zu wollen, in Fortführung der damaligen Untersuchungen im Abriß nun auf einige mir besonders wichtig scheinende analoge statistische Ergebnisse der griechischen Münzstatistik, wie sie neu erschlossen werden können, für die klassische und die hellenistische Zeit hinzuweisen. Über die wechselnde wirtschaftliche Bedeutung der verschiedenen Hellenenpoleis vom 5. Jahrh. v. Chr. bis zum endgültigen Siege Roms erhalten wir durch die jetzt einigermaßen vollständig zugänglich gemachten Münzhorte nicht wenig interessante Aufklärung.

Die Geldgeschichte des 5. Jahrh. v. Chr. wird, wie längst bekannt, auch nach unserem heutigen Material vor allem durch das Geld Athens in Horten charakterisiert, die überraschend stark vom Werden und Vergehen des stolzen attischen Reiches Zeugnis ablegen. Die politische Bedingtheit der Vergrabung der Horte tritt hier bemerkenswerterweise so deutlich hervor wie selten sonst.

Auf dem Boden von Attika selbst, wo wir unsere Münzhortstatistik in ihrer Zuverlässigkeit mit zahlreichen und eingehenden literarischen und inschriftlichen Quellen besonders gut vergleichen können, gibt es trotz intensivsten Münzgeldgebrauches, soweit ich sehe, Münzhorte im terminologischen Sinne nur aus dem 6. Jahrh. (drei), aus dem Ende des 4. Jahrh. v. Chr. (zwei) und von 87/86 v. Chr. (drei!), wenn wir von der römischen Zeit absehen. Es tritt hier m. E., auch wenn neue Funde noch einige Veränderungen in diesem Befunde herbeiführen sollten, ganz klar hervor, in wie enger Verbindung im Altertum wie später Wirren und Kriege zur Vergrabung von Münzschätzen stehen. Die ganze große Zeit des Perikleischen Athen und der attischen Arche ist nicht durch Münzschätze in Attika selber vertreten. Allein von ca. 479 v. Chr. hat man bei Marathon einen Hort von 4 Dareiken und einem Kroisosgoldstück bekanntlich gefunden. Der aber stammt nach seinem Geldinhalt nicht von einem Athener, sondern von einem persischen Soldaten oder eventuell von einem dem persischen Heere folgenden Händler der Schicksalsperiode der Alten Welt zwischen Thermopylai und Plataiai.

Es ist weiter auch kein Zufall, sondern hängt in verwandter Weise mit Krieg und Frieden zusammen, wenn wir aus Kleinasien im 6. Jahrh. v. Chr., d. h. aus der Zeit des ionischen Aufstandes und nahegelegenen Zeitpunkten, 14 Horte kennen, aus dem 5. Jahrh. v. Chr. dagegen nur 3, nicht weniger als 2 davon erst nach 412 v. Chr. zu datieren, während der dritte in Kilikien außerhalb des attischen Reiches gefunden worden ist. Das unruhige 4. Jahrh. v. Chr. weist dann in Kleinasien wieder 8, das 3. Jahrh. v. Chr. mit den Diadochen- und Galaterkriegen gar 19, das 2. Jahrh. v. Chr. 13 Münzhorte auf.

Bestätigend zeigt das hellenische Festland mit den Inseln im 6. Jahrh. v. Chr. 17 Horte, im 5. Jahrh. v. Chr. nur 9, wieder bis auf einen bemerkenswerterweise alle außerhalb des attischen Einflußgebietes. Im 4. Jahrh. dagegen finden wir 9 Horte mit weiterer Verbreitung, im 3. Jahrh. v. Chr. sogar nicht weniger als 30, im 2. Jahrh. v. Chr. 18 Horte. Die eben vorgeführte Statistik zeigt klar, daß die friedlichste Periode des eigentlichen Griechenlands wie des hellenischen Kleinasiens, in der die wenigsten Horte in die Erde kamen, ohne allen Zweifel das 5. Jahrh. v. Chr. gewesen ist. Das attische Reich muß sich für sein Machtbereich ganz außerordentlich segensreich ausgewirkt haben.

Das zeigt sich noch schlagender, wenn wir eine Übersicht über die Verbreitung des attischen und des sonstigen griechischen Münzgeldes außerhalb des eigenen Prägungsgebietes auf Grund des

Hortmaterials, wie ich es früher bereits für das 6. Jahrh. v. Chr. versucht habe, auch für das Jahrhundert der größten attischen Blüte zusammenzustellen suchen. Bezeichnenderweise vermögen wir aus dem 5. Jahrh. v. Chr. nicht weniger als 20 Münzschätze mit attischen Münzen zu verzeichnen, gegenüber dem attischen Bestande des 6. Jahrh. v. Chr. eine Steigerung um nicht weniger als das Dreifache. Keiner dieser Horte aber stammt, soweit ich sehe, aus dem attischen Reiche selber, wo offenbar Ruhe und Ordnung das Vergraben von Geld unnötig machten. Dafür zeigt sich auf einer Fundkarte, wie man sie unschwer anlegen kann, ein riesiges Streugebiet um das attische Reich rings herum. Tunis, Sizilien, Spanien, Großgriechenland, Ägypten, Kypros und Kilikien sind vertreten, geradezu eine münzhortstatistische Interpretation der Kraftlinien des Reiches des Perikles.

Noch dazu erobert der Kyzikener, die gangbarste Elektronwährung des 5. Jahrh. v. Chr., die, anscheinend von Athen bewußt gefördert, dem attischen Silber im Reichsgebiet an die Seite trat, sich ebenfalls eine sehr achtbare Stellung in den Horten der hellenischen Welt. Sein Streugebiet im 5. Jahrh. v. Chr. schließt bemerkenswerterweise, fast ohne das des attischen Silbers zu berühren, unmittelbar nördlich an dessen Verbreitungsgebiet an. Regling, der allzu früh dahingegangene ausgezeichnete Münzforscher, mein hochverehrter Lehrer, hat vor wenigen Jahren hier eine instruktive Übersicht geboten (K. Regling, 'Der griechische Goldschatz von Prinkipo', *Zeitschr. für Numism.* xli (1931), 1 ff., bes. 24 ff.).

Ins frühe 5. Jahrh. v. Chr. fällt danach ein Kyzikenerhort von Chios. In der Zeit der athenischen Arche über die meisten Hellenen nach den Perserkriegen finden wir drei Horte und zwar in Klazomenai, Bulgarien und vielleicht in Kertsch. Sie wären eigentlich noch denen des attischen Reiches hinzuzuzählen, sodaß dessen Hortbestand im 5. Jahrh. v. Chr. sogar auf etwa 23 Horte beziffert werden könnte.

Gegen Athen verschwinden dagegen im 5. Jahrh. v. Chr. alle übrigen Prägeorte. Korinth hat nur 7 Münzschätze aufzuweisen, wenig mehr als im 6. Jahrh., aber mit bemerkenswert weit nach Großgriechenland, Kleinasien und Ägypten reichendem Streugebiet. Aigina, das relativ bald nach den Perserkriegen von Athen politisch wie ökonomisch zur Bedeutungslosigkeit herabgedrückt wurde, hat noch Geld aus 4 Horten, Samos, noch länger verhältnismäßig unabhängig von Athen, ebenfalls aus 4 Horten uns überliefert, die aber bis nach Ägypten und Kleinasien reichen.

Es ist indessen für die einzigartige Stellung von Athen im 5. Jahrh.

v. Chr. sehr bezeichnend, daß in dieser Zeit weder in Asien noch auf dem hellenischen Festlande das Geld irgend einer bisher von uns noch nicht genannten Prägestätte in mehr als ein bis zwei Horten der Periode vorkommt, trotzdem die Gesamtzahl derselben an und für sich nicht gering ist. Selbst persische Münzhorte im Perserreich gibt es überraschenderweise in dieser Periode nur zwei, attische Horte im Perserreich dagegen 6.

Eine Sonderstellung gegenüber dem Ostmittelmeergebiet nimmt im 5. Jahrh. v. Chr. wie im 6. Jahrh. allein unverändert Großgriechenland ein. Eine bedeutsame Eigenentwicklung ist hier festzustellen. Athen ist immerhin auch im Westen in 8 Horten vertreten, Korinth in 5 Horten, wie überhaupt Korinth im 5. Jahrh. v. Chr. in den Westgebieten nicht weniger Einfluß besessen zu haben scheint als in der archaischen Periode. Es dominiert indessen in den großgriechischen Münzschätzen in überwältigendem Ausmaße Syrakus mit 18 Horten, unter Berücksichtigung der wechselnden Vasallenstädte des syrakusanischen Machtbereiches sogar mit etwa 60 Horten, die sich noch dazu bis Afrika, Spanien und Ägypten erstrecken.

Hinter Syrakus folgen in unserer Statistik die sizilischen Rivalinnen dieser Polis, Akragas und Messana, mit je 14 Horten. Gela, von wo die Tyrannis nach Syrakus übersprang, hat immerhin Geld in 12 Horten. Die Verhältnisse des 6. Jahrh. v. Chr. haben sich in sehr auffälliger Weise dabei im Westen völlig verschoben. Nicht mehr bildete, wie bisher, Unteritalien, sondern stattdessen die sizilische Insel ganz ausgeprägt den politischen und wirtschaftlichen Schwerpunkt der großgriechischen Siedlung. Leontinoi und Rhegion, Leontinoi eine sizilische Stadt, Rhegion eine mit der Insel besonders eng verbundene und als Ausfallstor nach dem Festland für diese besonders wichtige Meerengenstadt, haben Geld in je 10 Horten des 5. Jahrh. v. Chr., Himera in 9, das abgesehen von kurzen Unterbrechungen wie Gela und Leontinoi damals zum syrakusanischen Reich gehörte.

In Unteritalien dominierte, abgesehen von Rhegion, jetzt statt Sybaris und Kroton Metapont mit 7 Horten. Das kleine Selinus auf Sizilien, mit ebenfalls 7 Horten ausgestattet, davon aber 2 im eigenen Gebiet gefunden, stand bezeichnenderweise der alten Herrin Großgriechenlands in archaischer Zeit, Kroton, mit seinen nur 6 Horten im 5. Jahrh. v. Chr. etwa gleich. Das zerstörte Sybaris wirkte sich noch in 5 Horten aus. Kleinere Plätze Großgriechenlands scheinen im 5. Jahrh. v. Chr. Kamarina, Katana, Poseidonia, Segesta und Tarent gewesen zu sein. Alle diese Poleis haben Münzgeld in

nicht mehr als 4 Horten, was ein Hinweis darauf sein mag, daß die Macht von Tarent im 5. Jahrh. v. Chr. noch nicht überschätzt werden darf.

Die großgriechischen Verhältnisse des 4. und 3. Jahrh. v. Chr. nehme ich zum Vergleich gleich hinzu. Im hellenischen westlichen Kolonialgebiet des 4. Jahrh. v. Chr. kommen attische Münzen auf einmal nur noch in 2 Horten vor, korinthische dagegen in nicht weniger als 9, mehr als Horte mit attischen Eulen im Italien des 5. Jahrh. Es liegt hier m. E. ein sehr interessantes statistisches Anzeichen dafür vor, daß dem bekannten Rückgang des attischen Keramikexportes nach Westen während des 4. Jahrh. ein gleichsinniger Wirtschaftsrückgang des ökonomischen Verkehrs Athens mit dem großgriechischen Gebiet überhaupt entsprochen hat.

Zugleich erkennen wir auch aus demselben Münzhortbefund, wie sich im Gebiet der Kolonialpoleis des Westens jetzt Korinth unter allen Städten des Mutterlandes die stärkste Stellung errang, eine bemerkenswerte Strukturwandlung, auf die auf diesem Kongreß heute auch F. Altheim hingewiesen hat. Im allgemeinen hatte die korinthische Wirtschaftsexpansion des 4. Jahrh. v. Chr. rein wirtschaftlichen, aber mitunter, wie etwa in der Zeit des Timoleon, auch politischen Charakter.

Kürzlich hat A. Blakeway, 'Demaratus', *Journ. Rom. Stud.* xxv (1935), 129 ff. in unserem Zusammenhang die interessante These aufgestellt, daß die von ihm gegen die *communis opinio* der bisherigen Forschung als auf einen historischen Vorgang zurückgehend betrachtete Nachricht von der Einwanderung des Korinthers Demaratus nach Etrurien, des Stammvaters der Tarquinier, mit ihren wirtschaftlichen Begleitumständen nicht im 4. Jahrh. v. Chr. von römischen Fälschern erfunden worden sein könnte. Denn damals habe im Gegensatz zum 7. Jahrh. vor Chr. Korinth keine hervorstechende ökonomische Rolle im Westen mehr gespielt. Unsere Münzstatistik zeigt, daß umgekehrt der korinthische Wirtschaftseinfluß in Italien wohl in keiner Periode so hervorstechend gegenüber den anderen Poleis des Ostmittelmeergebietes gewesen ist wie damals, sodaß das Aufsehen erregende Argument von Blakeway damit entfällt.

In Zusammenhang mit den Wirren im Syrakus des 4. Jahrh. v. Chr. scheint weiter nach Ausweis der Münzhorte in Großgriechenland eine die Situation des 6. Jahrh. v. Chr. bis zu einem gewissen Grade analog wieder erneuernde wirtschaftliche Schwerpunktsverschiebung nach Norden hin eingetreten zu sein, die in der Fachliteratur bisher noch kaum beachtet worden ist. Geld von Tarent

kommt jetzt in nicht weniger als 17 Horten vor, eine Steigerung um das vierfache gegenüber dem 5. Jahrh. v. Chr. Selbst in Saloniki hat man tarentinische Münzen des 4. Jahrh. v. Chr. gefunden. Syrakus hat demgegenüber nur noch Geld in 16 Horten, reicht aber auch bis Kilikien.

Nach Tarent folgt im unteritalischen Teilbezirk das im 4. Jahrh. v. Chr. mächtig aufblühende Thurioi, die Gründung des Perikles und Nachfolgerin des in archaischer Zeit wirtschaftsmächtigen Sybaris, mit nicht weniger als 14 Horten. Das noch immer ökonomisch blühende Metapont, das auch nicht aus Zufall, wie auf diesem Kongreß soeben H. Mattingly überzeugend aufgezeigt hat, auf die früheste römische Prägung stilistisch gewirkt zu haben scheint, hat Münzgeld in 11, Velia in der Nähe von Poseidonia in 10, das wieder neu aufsteigende Kroton in 9 Horten. Auch hortgeschichtlich bisher wenig bemerkenswerte Prägestätten Italiens beginnen im 4. Jahrh. v. Chr. als verhältnismäßig bedeutsam in unserer Statistik hervorzutreten. Terina erscheint in 8, Herakleia in Lukanien in 8, Neapolis in 7, das opuntische Lokroi in 5, Nola in 4 Horten.

Sizilien hatte dagegen, abgesehen von Syrakus, in dieser Zeit bemerkenswerterweise überhaupt keine bedeutende Prägestätte mehr. Die 16 Horte von Syrakus erscheinen unter diesem Gesichtspunkt gegenüber den fast 60 Horten des syrakusanischen Reiches im 5. Jahrh. v. Chr. als sehr geringfügig. Als neue wichtige Prägemacht tritt im 4. Jahrh. v. Chr. Karthago in die großgriechische Sphäre ein. Es hat 6 Horte aufzuweisen, scheint also an Wirtschaftseinfluß im griechischen Westen noch immer hinter Korinth zurückgestanden zu haben.

Für Großgriechenland und Sizilien ist dann schließlich im 3. Jahrh. v. Chr. während des über hundertjährigen Machtkampfes zwischen Rom, Karthago und den westgriechischen Staaten nicht erstaunlicher Weise eine neue und letzte sehr beträchtliche Schwerpunktsverschiebung gegenüber dem 4. Jahrh. v. Chr. aus dem Hortmaterial heraus festzustellen. Im 4. Jahrh. v. Chr. hatte Tarent, seit dem Ende des Pyrrhuskrieges nur noch ein Teil des römischen Machtbereiches, unter allen Hellenenstädten des westgriechischen Kolonialgebietes an erster Stelle gestanden. Im 3. Jahrh. v. Chr. hat Tarent immer noch 15 Horte aufzuweisen, ein Zeichen für die innere ökonomische Regenerationskraft dieser Stadt. Dann aber folgen unmittelbar Rom, in der Datierung freilich heute sehr ernsthaft umstritten, mit 14, Karthago mit 10 Münzschätzen, denen noch 4 von Panormos zugerechnet werden müssen. Neapel steigt unter

römischem Schutz von 7 im 4. Jahrh. auf 11 Horte im 3. Jahrh., Thurioi und Herakleia haben noch 6 Horte, Rhegion und Panormos je 4 Horte aufzuweisen. Neu kommt Cales mit 6 Horten hinzu.

Alles aber wird jetzt übertroffen von Syrakus. Diese Stadt hat uns aus dem 3. Jahrh. v. Chr. Geld aus nicht weniger als 26 Horten hinterlassen, soviel wie noch nie in der Geschichte dieser Prägestätte. Es ist dies starke Überwiegen syrakusanischer Münzen im Westen eine bezeichnende Illustrierung der wirtschaftlichen Macht, die der syrakusanische Königsstaat von Agathokles bis Hieron im italischen Gebiet besessen hat. War auch viel politische Macht an Rom verloren gegangen, die wirtschaftlich bedeutendste Stadt Großgriechenlands, ja ganz Italiens, ist Syrakus offenbar im 3. Jahrh. v. Chr. geblieben, noch immer Zentrum eines wirklichen Großstaates.

Auch in Hellas und Asien brachte das 4. Jahrh. v. Chr. gegenüber dem 5. Jahrh. starke Veränderungen. Athen sinkt in unserer Hortstatistik von 20–23 Horten auf 10 herab, von denen sich aber auffallenderweise nicht weniger als 7 im Perserreich bis zum Tigris befinden. Denn dorthin richtete sich bekanntlich damals nicht nur eine relativ starke attische Wirtschaftsexpansion. Das attische Silber scheint im Osten überhaupt jetzt so beliebt geworden zu sein, daß nur barbarische Nachprägungen, die wir aus unserer Periode in nicht ganz geringer Zahl besitzen, jener wachsenden allgemeinen Nachfrage voll zu genügen vermochten, die schließlich in der Übernahme des attischen Münzfußes in die Währungen Philipps und Alexanders ihren Kulminationspunkt gefunden hat.

Korinth rückt jetzt in unserer Statistik zugleich gegenüber Athen zu ebenfalls 10 Horten auf, 9 davon aber, wie schon gesagt, bemerkenswerterweise im griechischen Westen. Der Osten wie der Westen scheint demnach im 4. Jahrh. nach Ausweis der Horte zwischen den Weltwährungen von Korinth und Athen in ziemlich reinlicher Scheidung aufgeteilt gewesen zu sein, wie ja damals ganz analog zu den Eulennachprägungen des Orients im Westen häufig genug korinthische Pegasi entweder mit einem neuen Stadtwappen überstempelt oder auch einfach nachgeprägt worden sind. Im hellenischen Mutterland dagegen kommen in dieser Zeit der unseligsten hellenischen Zerspaltung und des persischen Druckes fast nur kleine Polisprägungen in einzelnen Horten vor, diese in ihrer Gesamtzahl freilich ziemlich häufig. Es gab nur wenige Währungen von größerer Verbreitung.

Das junge aufblühende Rhodos hat immerhin bereits Geld in 6 Horten. Lampsakos, dessen Goldstatere nun sehr beliebt wurden,

weist 5 Horte mit sehr weiter Streuung bis Ägypten und Sizilien auf. Kyzikos hat 5 Horte mit etwas weiterem Streugebiet als bisher, Sikyon 4, Pantikapaion im Pontosgebiet 3–4 Horte. Von den Flächenstaaten der Periode hat das Perserreich, das sein Geld aus politischen Gründen stark rollen ließ, 7 Münzhorte gegenüber 2 im 5. Jahrh. und 6 im 6. Jahrh. v. Chr. aufzuweisen. Münzen Philipps II. von Makedonien, des großen Konkurrenten des Perserreiches, kommen demgegenüber bereits in 7 zeitgenössischen Horten vor. An Zahl der Horte stand Makedonien so schon vor Alexander hinter Persien alles andere als zurück, an Streuweite der Prägungen übertraf das makedonische Geld die persischen Bogenschützen bei weitem. Von Italien bis zum Nil und zum Schwarzen Meer sind Prägungen Philipps in voralexandrinischen Schätzen zu finden.

So gibt die bisher noch ganz ungenügend ausgewertete Quelle der Münzhortstatistik für die Geldgeschichte wie für die Handelsgeschichte und selbst für politische Schwerpunktsverschiebungen der klassischen Periode außerordentlich instruktive Hinweise. Sie zeigt uns das Emporkommen Athens im 6. und 5. Jahrh. v. Chr. bis zur strahlenden Höhe des perikleischen Zeitalters, das Makedoniens im 4. Jahrh. v. Chr., die hellenische Zerspaltenheit der Zeit des persischen Druckes, die allmähliche wirtschaftliche Annäherung des Orients an das hellenische Zivilisationsgebiet, die wechselnden Schwerpunktsverschiebungen zwischen den hellenischen Poleis im unteritalischen und im sizilischen Gebiet und die schwankenden Beziehungen des Westens zu Athen und Korinth im hellenischen Mutterland.

Auch über die kleineren, in ihrer Wirtschaftskraft auf andere Weise quellenmäßig selten scharf zu fassenden Prägegebiete des griechischen Mutterlandes in hellenistischer Zeit, gewähren uns die Münzhorte sehr interessante neue Aufschlüsse. Die Bedeutung der in der klassischen Zeit noch dominierenden Polisprägeorte läßt sich in ihrem jeweiligen Ausmaße auch für die neue Zeit nach Alexander noch einigermaßen prägnant ablesen. Athen hat im 3. Jahrh. v. Chr. immer noch Geld in 16, im 2. Jahrh. v. Chr. in 10, selbst im 1. Jahrh. v. Chr. in 9 Horten außerhalb seines eigenen Staatsgebietes aufzuweisen. Freilich an Zahl der Horte, in denen Eulenprägungen uns entgegentreten, steht die Verbreitung attischen Geldes gegenüber der der Diadochenprägungen nichtsdestoweniger sehr zurück. Auch in den Schätzen mit attischer Beimischung besteht meistens der größere Prozentsatz aus Diadochenmünzen. Stärker noch als die Zahl der Horte ist darüber hinaus im Hellenismus aber die Streuweite der attischen Münzfunde zurückgegangen. Fast nur das

hellenische Festland spielt für das Vorkommen in Athen geprägten Geldes bemerkenswerterweise jetzt noch eine Rolle.

Korinth mit 8 Horten im 3. Jahrh., 3 noch im 2. Jahrh. v. Chr., das die Zerstörung dieser Welthandelsstadt brachte, behauptete im Vergleich zu Athen ebenfalls immerhin eine achtungswerte Stellung. Besonders waren die alten korinthischen Beziehungen zum Westen, insbes. Sizilien, nach Ausweis der Horte im 3. bis 2. Jahrh. v. Chr. nicht abgerissen, wohl auch ein Grund mehr für Rom und seine Ritterunternehmer, sich des lästigen Fernhandelskonkurrenten in der eigenen Machtssphäre zu entledigen. Denn so umstritten das Ausmaß der römischen und italischen Handelsbetätigung im Ostmittelmeergebiet während der ersten Hälfte des 2. Jahrh. v. Chr. auch zur Zeit ist, Sizilien und Unteritalien waren zweifellos bereits damals für Fernhandelsgeschäfte römischer Unternehmer von besonderer Wichtigkeit.

Sikyon, die mächtigste Stadt des achäischen Bundes und Mutterstadt Arats, hat immerhin ebenfalls im 3. Jahrh. v. Chr. Geld aus 5, im 2. Jahrh. v. Chr. aus 2 Horten uns im Boden hinterlassen. Rhodos dagegen hat im 3. Jahrh. v. Chr. nur einen Münzhort außerhalb seines Staatsgebietes aufzuweisen. Es ist das sehr auffällig, da auch die Verbreitung rhodischer Amphoren, die wir statistisch verhältnismäßig genau überblicken können, für das 3. Jahrh. v. Chr. noch eine relativ geringe Fernhandelsintensität dieser Polis ergibt. Erst im 2. Jahrh. v. Chr., der Blütezeit des rhodischen Vasenexportes, steigt das Vorkommen rhodischen Geldes unter römischer Förderung auf 10 Horte und erreicht damit den Standard Athens. Über das althellenische Siedlungsgebiet vermag indessen auffälligerweise selbst damals das rhodische Geld kaum hinauszudringen. Die Prägungen anderer griechischer Staaten des Mutterlandes kommen in den Horten nicht häufig vor. Höchstens wäre Böotien zu erwähnen, dessen Geld im 3. Jahrh. v. Chr. immerhin in 4 Horten vorkommt.

Ist so aus der Verbreitung des Münzgeldes der kleineren hellenistischen Prägeorte in griechischen Münzgeldhorten unverändert mancherlei für die Bedeutung der betreffenden Gebiete in wirtschaftlicher Hinsicht zu gewinnen, so läßt sich demgegenüber, soweit ich sehe, aus den mannigfaltigen Funden von Diadochenmünzen attischer Prägung wenig für die Abgrenzung der wirtschaftlichen Auswirkungskraft der einzelnen Königsstaaten der Periode über ihre Grenzen hinaus erschließen. Abgesehen von dem natürlichen Vorwiegen der Emissionen der unmittelbaren Staatsgebiete in der Mehrzahl der Funde mischen sich die Diadochenmünzen

attischen Fußes derartig gleichmäßig im Hortmaterial, daß über die wirtschaftliche Bedeutung der einzelnen Reiche über ihre Grenzen hinaus sich aus diesem Quellenkomplex wenig folgern läßt. Bezeichnend ist allein, wie weit verstreut bis nach Mitteleuropa und Zentralasien hinein solche Münzen mitunter vorkommen.

Die Ptolemäermünze dagegen hat Ägypten und das ptolemäische politische Einflußgebiet im Ostmittelmeer nur in Einzelfunden überschritten. Bezeichnend für die Weite des Fernhandels der Periode reichen indessen auch diese bis Massilia in Südfrankreich, Tunesien, Britannien und Kroatien. Kaum oder überhaupt nicht von der Diadochenmünze berührt wurden nach dem augenblicklichen Befunde unseres Hortmaterials, der sich aber immerhin ändern kann, Frankreich, Korsika, Sardinien, Norditalien, Ungarn und Spanien, wo in den letzten vorchristlichen Jahrhunderten sich allein karthagische, römische und polis-griechische, besonders westgriechische Münzen und dazu einheimische Prägungen bemerkbar machten. Spärlich und spät wurde Mittelitalien erfaßt, das sich erst allmählich in den hellenistischen Welthandelszusammenhang einzugliedern vermochte. Ähnlich stand es mit Dalmatien, Bosnien und Kroatien, wo der Einfluß hellenistischen Geldes so wenig überschätzt werden darf wie für Südarabien und Indien, alles Gebiete der vorchristlichen Zeit mit ausgeprägter Eigenentwicklung.

Ich bin damit am Ende meiner knappen Übersicht angelangt. Im Rahmen dieses Vortrages habe ich manche Probleme, die sich ergeben, nur kurz skizzieren können. Zum Teil werden sie in meiner vor dem Druck stehenden *Wirtschaftsgeschichte des Altertums vom Paläolithikum bis zur Völkerwanderung der Germanen, Slaven und Araber* eingehender behandelt werden. Die Datierung mancher Horte, die ich für meine statistischen Feststellungen heranzog, ist plausibel, aber nicht völlig gesichert. Auch mag mir manches Hortmaterial entgangen sein, das in den letzten Jahren publiziert oder von Noe nicht beachtet worden ist.

Immerhin hoffe ich, daß meine Ausführungen, so wenig sie notwendigerweise die Probleme haben erschöpfen können, mithelfen werden, darauf aufmerksam zu machen, welch überreiches und fast noch unausgenütztes Quellenmaterial auf dem Gebiete der griechischen Münzhortstatistik auf den fleißigen und kritischen Forscher wartet, der es nach bewährten Methoden auszuwerten unternimmt. Ich schließe mit dem Wunsche, daß bald einmal eine ähnliche Monographie, wie sie 1926 von Sture Bolin über römische Münzhorte versucht worden ist, auch über griechische Münzhorte wagemutig erscheinen möge.

Nachbemerkung. Vorstehender Vortrag beabsichtigt, im Abriß den Fachgenossen schon jetzt einige Forschungsergebnisse und methodisch neuartige Annäherungsversuche an wirtschaftshistorisch fundamentale Probleme der Altertumswissenschaft zugänglich zu machen, die im Rahmen von cap. VI und VII meines im zweitletzten Absatz des Vortrages genannten Buches durch kritische und auf den gesamten überblickbaren Hortbefund eingehende Anmerkungen unter Einschluß der archaischen Periode endgültig unterbaut werden sollen. Dort wird auch die Neuauflage der grundlegenden Hortbibliographie von S. P. Noe zumindest durch Einarbeitung der mir liebenswürdigerweise in der letzten Zeit vom Verf. zugesagten Korrekturfahnen ausgenutzt werden können, die sich, wie ich leider erst auf dem International Congress of Numismatists selber erfuhr, unter sehr beträchtlicher Vermehrung des bisher zugänglichen Hortmaterials erfreulicherweise in Vorbereitung befindet.

Die Einzelzahlen der von mir im Vorstehenden vorgelegten statistischen Untersuchungen werden unter diesen Umständen in Kürze mit Sicherheit quantitativ größer angesetzt werden müssen. Daß abgesehen von notwendig problematisch gebliebenen und der Modifizierung bedürftigen Einzelfragen meine grundsätzliche Statuierung gewisser wirtschaftlicher Schwerpunktsverlagerungen in der antiken Welt mit chronologisch wechselnden Tendenzen, die aus dem griechischen Hortbefund bereits jetzt erschließbar sind, durch die zu erwartende Quellenvermehrung weiter gestützt werden wird, ist wohl mit Zuversicht zu erwarten.

Meiner kurzen Auseinandersetzung mit einer Theorie von A. Blakeway möchte ich angesichts des kürzlich erfolgten tragischen Todes dieses Forschers, der so etwas wie ein Julius Beloch der englischen jungen Althistorikergeneration seiner ganzen Einstellung nach zu werden versprach, den Ausdruck meines tiefen und aufrichtigen Bedauerns über den Verlust folgen lassen, den die Wissenschaft durch das allzu frühe Hinscheiden dieses aufrüttelnden Geistes erlitten hat.

THE SHEKELS OF THE FIRST REVOLT OF THE JEWS[1]

SIR GEORGE HILL

IN this paper Sir George Hill described a number of silver coins said to have been found together in Jerusalem in 1935. They were two tetradrachms of Ptolemy II, Philadelphus, 22 autonomous shekels of Tyre dating from 40/39 B.C. to about A.D. 19/20; 1 semi-barbarous imitation of a shekel of 29/8 B.C. of the same series; and 64 Jewish shekels (chalice and stem-with-flowers type), all of the third year. The shekels, apart from incrustation, were all in mint-condition, and must have been buried without having circulated at all. The other coins, on the other hand, were all badly worn, except the imitation of a Tyrian shekel. If all these coins come from the same find, the traditional Maccabaean date for the shekels is excluded, and the only possible date remaining for them is the First Revolt. The evidence of the small find made some fifteen years ago is so far confirmed. Unfortunately it is not absolutely certain that the coins all come from one hoard, and the new evidence must be taken with reserve. As regards the normal weight of the shekel, the newly discovered coins fix it definitely at 14·27 grammes.

[1] Published in *Palestine Quarterly*, vi. 2.

EINE VERSCHOLLENE BRONZEMÜNZE VON SYRAKUS

PH. LEDERER

(*Tafel VII*)

Vs. Zeuskopf nach r. mit Lorbeerkranz, das Haar lang herabfallend.
Rs. ΣΥ]ΡΑ? (oben) Viergespann im Dreiviertelprofil, r. sprengend, der Kopf des dritten Pferdes ist nach hinten gekehrt, Lenkerfigur undeutlich; i. A. Schriftspuren?
Æ→ 27 mm. 14,90 g. Stark vernutzt. Tafel VII, 3.
Sammlung P. M. Proschowsky, Hellerup.

Dank gebührt dem Besitzer, der die Münze trotz ihrer geringen Erhaltung (die immerhin noch das Wesentliche von den Formen der Bilder zeigt) als syrakusisch erkannt hat und sie unediert glaubte. In der Tat fehlt eine solche Münze mit Zeuskopf und *bewegter Quadriga*, die nach Stil, Fabrik und Gewicht unzweifelhaft dem 4. Jahrhundert v. Chr. angehört, in der ganzen neueren umfangreichen Sizilienliteratur (Imhoof, Head, Evans, Holm, Hill, Giesecke, Gabrici).

Ist die Aufschrift auch fast völlig unleserlich, so kann es doch kaum zweifelhaft sein, daß die Münze nach Sizilien gehört[1] und Syrakus zuzuteilen ist. Wenn der Zeuskopf natürlich auch für andere sizilische Städte möglich wäre, seine Verbindung mit dieser Galoppquadriga ist im 4. Jahrh. kaum anderswo als eben in Syrakus denkbar. Das Rückseitenbild deutet auf Wagenrennen hin, die um diese Zeit nur noch die allein neben allen anderen griechischen Städten der Insel mächtig gebliebene Metropole wird haben feiern können.[2] Spezifisch syrakusisch ist ja auch der Typus des lebensvoll bewegten Gespannes mit der Kopfwendung des dritten Pferdes, der sich eng an den der letzten Tetradrachmen von Syrakus aus der Wende vom 5. zum 4. Jahrhundert anschließt oder diesen wieder aufnimmt. Er gibt uns

[1] Head, *Num. Chron.* 1878, S. 87: 'except in Sicily, agonistic types on coins are of extreme rarity.' Vgl. auch Holm, *Gesch. Siciliens*, iii (1898), S. 565.

[2] Gewiß nicht die kleine Stadt Morgantina, von der es, einzig unter den Prägungen von Griechenstädten Siziliens im 4. Jahrhundert, ein Tetradrachmon mit Göttinnenkopf und Galoppquadriga im Typus der Euainetos-Dekadrachmen gibt (Mirone, *Rev. Num.* 1918, S. 112–21; Hill, *Num. Chron.* 1924, S. 1–4; Boehringer, *Zeitschr. f. Num.* xlii (1935), S. 256, Taf. IX, 3). Über dessen Datierung herrscht nur insofern Einigkeit, als man es vor Timoleons Zeit setzt. Die Typen sind, wie Hill wohl mit Recht hervorhebt, auf einfache Nachahmung syrakusischen Geldes zurückzuführen.

einen terminus ante quem: die Zeit vor Agathokles 317 v. Chr., dessen Tetradrachmen die bekannte steifere Komposition des Gespannes mit einer mehr parallelen Anordnung der Pferde aufweisen.[1]

Der Götterkopf erinnert im allgemeinen an den Zeus Eleutherios der bekannten syrakusischen Bronzemünzen aus der Zeit der Demokratie 345–17 mit springendem Pferd als Rückseite, der indes stets nach links gewendet, auch im Stile etwas geringer und also gewiß nicht ganz gleichzeitig ist.

Dem Gewichte nach ist die Münze ein Hemilitron, das Halbstück der als zu Timoleons Zeit gängig von E. Gabrici[2] angenommenen Bronzelitra von ca. 35 g. Aus metrologischen Gründen teilt Gabrici die Massen des Kupfers dieser Zeit in zwei Gruppen:

A. höhergewichtig,[3] geprägt unter Timoleon selbst, 345–36, mit
   (*a*) Litra: Athenakopf r. Rs. Seestern zw. 2 Delphinen — Gabrici, Taf. III, 1. Tafel VII, 1 (Berlin, alter Bestand, 33,74 g)
   (*b*) Hemilitron: Zeuskopf r. kurzlockig. Rs. Blitz, daneben Adler — id. IV, 21. Tafel VII, 2 (Berlin, Imhoof, 13,31 g)
   (Auf die kleineren Nominale beider Gruppen erübrigt es sich hier einzugehen.)

B. geringergewichtig, geprägt in den 20 Jahren nach Timoleons Tode bis zu Agathokles 317 mit
   (*a*) Litra: Behelmter bärtiger Kopf l. Rs. Pegasus über Delphin — Gabrici, Taf. IV, 19. Tafel VII, 4 (Berlin, Imhoof, 21,08 g)
   (*b*) Litra: Zeuskopf l. langlockig. Rs. Springendes Pferd — id. IV, 20. Tafel VII, 5 (Berlin, Löbbecke, 18,20 g).

Gabricis zeitlicher Anordnung der Bronzemünzen mit den Zeusköpfen scheint auch der Stil insofern Recht zu geben, als das Ideal des Zeus mit dem kurzen Haar und etwas strengerem Ausdruck offenbar das ältere ist. Das wird in den Münzreihen von Elis besonders deutlich, vgl. C. T. Seltman, *Temple Coins of Olympia* (1921),

[1] Wenn C. T. Seltman in seinem Handbuch *Greek Coins* (1933), S. 190 entgegen der herrschenden Anschauung diese Prägungen in die Zeit von Dionysios I. und II. zwischen 387 und 357 verlegen will (was auch bei Regling in seiner Kritik des Seltman'schen Buches, *Zeitschr. f. Num.* xlii (1935), S. 265, auf Zweifel gestoßen ist), so mag es hier genügen, die Rückseite eines solchen Tetradrachmons (Tafel VII, 6 (links)) neben die einer sicheren Agathoklesmünze (Tafel VII, 6 (rechts)) zu stellen. Die gleiche Ausstattung der beiden Emissionen mit dem Monogramm AI und dem Beizeichen Triskeles (zu diesem als vermutlich persönliches Wappen des Agathokles vergl. Holm, *Gesch. Siciliens*, iii, S. 680; Hill, *Coins of Ancient Sicily*, S. 152 ff.) macht es unmöglich, ein Intervall von ca. 50 Jahren zwischen ihnen anzunehmen. W. Giesecke in *Sicilia Numismatica* (1923), S. 87 glaubt die in Rede stehende Tetradrachmengruppe kurz vor dem Staatsstreich des Tyrannen 317 entstanden.

[2] *La Monetazione del bronzo nella Sicilia Antica*, Palermo, 1927, S. 58 ff. Ich folge hier seinen im Gegensatz zu W. Giesecke (*Sicilia Numismatica*) stehenden Anschauungen.

[3] Die Nachweise siehe bei Gabrici.

Taf. VI, Series xx, xxi (Zeit ca. 363 bis 343), dazu Text S. 62. Dort ist schon auf ein ähnliches Faktum eines 'alten' und 'neuen' Zeustypus bei den etwa gleichzeitigen Stateren der Arkadischen Liga hingewiesen; ein solches ist ferner auch von den Stateren der epizephyrischen Lokrer (Head, *Hist. Num.*[2], S. 102–3) bekannt.

Des weiteren verwenden die großenteils auf dem älteren Bronzegeld des Timoleon aufgeprägten Münzen der sikelischen Symmachie und der Halaisiner (vgl. G. Cavallaro, 'Le Monete degli Alesini Siculi e della Symmachia', *Atti e Mem. dell' Ist. It. di Num.* viii (1934), S. 1 ff., Taf. I, nos. 1, 2, 7, 9) wie auch anderer Städte der, um Hills Ausdruck zu gebrauchen (*Coins of Sicily*, S. 176), timoleonischen Liga (Agyrion, *B.M.C.*, S. 26, no. 9; Aitna, Salinas, *Le Monete delle ant. città di Sicilia*, Taf. III, no. 1, J. Babelon, *Cat. Coll. de Luynes*, i, no. 842; Petra, E. S. G. Robinson, *Sylloge Numm. Graec.* ii (1935), The Lloyd Collection, no. 1164 = früher Eryx, Gabrici, Taf. III, no. 14) ausschließlich diesen älteren Zeustypus.[1] Freilich unterläßt es Gabrici, auf den Zusammenhang mit den herrlichen Zeusköpfen des langgelockten Typus und freieren Stils von den gewöhnlich Timoleon zugeschriebenen Gold- und Silbermünzen (C. T. Seltman, *Greek Coins*, Taf. XLV, 4 u. 5, Text S. 193) einzugehen.[2] Über die genauere chronologische Ordnung der syrakusischen Münzen des 4. Jahrhunderts sind im übrigen die Meinungen oft noch sehr schwankend.[3]

Nun sind die Bronzemünzen der vorerwähnten zwei Gruppen mehr oder weniger häufig; es wird ein längerer Zeitraum für ihre Prägung angenommen werden müssen, als der im allgemeinen die Periode von ca. 345–17 gilt. Die Vereinzelung unserer Münze aber

[1] S. Mirone gibt in der Abhandlung 'Copies de Statues sur les Monnaies Antiques de la Sicile', *Revue Num.* 1923, S. 37–41, eine Zusammenstellung der Eleutheriosköpfe auf sizilischen Münzen, die er (S. 40) sämtlich als Kopien nach der durch die Syrakusaner nach dem Sturze des Thrasybulos errichteten Kolossalstatue des Gottes betrachtet, während der von ihm zitierte Furtwängler, *Meisterwerke*, S. 408–9, doch schon klar den älteren, von dieser Statue abzuleitenden Typus von dem freieren, dem Geschmacke der Timoleonzeit entsprechenden geschieden hatte. In dem bärtigen Kopf übrigens auf einigen syrakusischen Hemiobolien des 5. Jahrhunderts (siehe mein *Syrakus. Kleingeld im 5. Jahrh. v. Chr.* 1913, Taf. iv, 3, 4, 5), den Mirone (S. 41) als frühe Reproduktion des Kopfes jener Kolossalstatue ansprechen möchte, vermag ich aus den s. Zt. geltend gemachten Gründen auch heute nicht einen sicheren Zeus zu erkennen!

[2] Æ Seltman, Taf. xlv, no. 8, mit solchem Kopf Rs. Triskeles (*Zeit der Demokratie*, 345–17, besonders wichtig wegen des erstmaligen Auftauchens der Triskeles!) fehlt übrigens merkwürdigerweise in Gabricis wie Gieseckes Zusammenstellung der syrakusischen Bronzemünzen, obwohl doch schon bei Head, *Hist. Num.* 2, S. 180 aufgeführt.

[3] Vgl. G. Macdonald, *Cat. Hunterian Collection*, i, S. 226, Anm. zu Periode ca. 406–345 v. Chr.

im Zusammenhange mit ihrem singulären agonistischen Rückseitenbild[1] legt es nahe, einen besonderen, *vorübergehenden* Entstehungsanlaß zu vermuten. Als diesen ließe sich etwa denken:

(1) Die Erhebung der Amphipolie des Zeus Olympios zum höchsten Ehrenamte von Syrakus durch Timoleon (Diod. 16. 70) bei Beginn seiner Regierung (Holm, ii, S. 204, iii, S. 655). Wie nach Vertreibung des Tyrannen Thrasybulos 466 v. Chr. der Dienst des Befreiers Zeus mit öffentlichen Spielen, Eleutheria, gefeiert wurde (Diod. 11. 72), so könnten aus dem ähnlichen Anlaß solche Agone wieder aufgenommen worden sein.[2]

(2) Der glänzende Sieg über die Karthager am Flusse Krimisos i. J. 339,[3] der Timoleon große Beute brachte. Es wäre denkbar, daß er, wie die Siege von Himera und am Assinarosflusse,[4] also gemäß alter syrakusischer Tradition, durch Spiele gefeiert worden wäre.

(3) Der Tod des bedeutenden Staatslenkers i. J. 336. Diese Deutung hätte eine gewisse *literarische* Stütze. Denn Spiele Timoleon zu Ehren anläßlich seines feierlich begangenen Begräbnisses sind durch Plut. *Tim.* 39 bezeugt:

'Als die Leiche auf dem Markte auf den Scheiterhaufen gelegt war und alles Volk, soviel der Raum faßte, sich versammelt hatte, da trat Demetrios, der von den Herolden die kräftigste Stimme hatte, vor und rief: "Das Volk von Syrakus bestattet Timoleon, den Sohn des Timodemos, den Korinther, der hier liegt, auf öffentliche Kosten mit einem Aufwand von 200 Minen und hat beschlossen, daß er auf ewige Zeiten mit musischen, hippischen und gymnischen Wettkämpfen (*ἀγῶσι μουσικοῖς, ἱππικοῖς, γυμνικοῖς*) geehrt werden soll, weil er die Tyrannen gestürzt, die Barbaren besiegt, die größten der verlassenen Städte wieder bevölkert und den Griechen auf Sizilien die gesetzliche Freiheit wiedergegeben hat."'[5]

[1] Über den agonistischen Charakter des sizilischen Rennwagens vgl. zuletzt E. Boehringer, *Die Münzen von Syrakus*, 1929, S. 95.

[2] Erneuerung der Feste bei dieser Gelegenheit vermutet auch Furtwängler, *Meisterwerke der griech. Plastik*, 1893, S. 409.

[3] Nach Diodor; wahrscheinlich einige Jahre vorher, vgl. Holm, ii, S. 207 und 469.

[4] Vgl. A. J. Evans, *Syracusan 'Medaillons' and their Engravers*, 1892, S. 11, 129, 141 ff.; E. A. Freeman, *Geschichte Siciliens* (deutsche Ausgabe von Bernhard Lupus), iii (1901), S. 668–72.

[5] Auf diese Plutarchstelle hatte Head, *Coinage of Syracus*, 1874, S. 29, das Silbermünzchen (2½ Litren oder Hemidrachme) mit Pallaskopf en face im Eukleidesstil Rs. Nackter Reiter im Schritt (Head, ebda., Taf. vi, 13 und 14, *B.M.C. Sicily*, S. 186, no. 280–2) beziehen wollen. Aber niemand ist ihm darin gefolgt, wie auch in seiner *Historia Numorum* nicht mehr die Rede davon ist. Im übrigen gehen auch die Meinungen über die Datierung dieser Münze auseinander — eine Illustration zu dem oben Gesagten über die noch unsichere Einordnung von

Der Zeus der Vorderseite als Schutzpatron des Timoleon und der Syrakusaner[1] wäre für eine aus solcher Veranlassung geprägte Münze sehr verständlich; zu seinen Lebzeiten bereits eingeführt, hätte der Typus jetzt eine etwas veränderte Fassung erhalten.

Würde die Beziehung unserer Münze auf die Leichenfeier zu Ehren Timoleons nun zutreffen, so wäre ein interessanter zeitlicher Fixpunkt für die Entwicklung der timoleonischen Litra im Sinne der Gabrici'schen Ordnungen gegeben. Dieses noch vollwichtige Hemilitron würde eben den Abschluß seiner Gruppe A bezeichnen und (336 v. Chr.) zur Reduktion in Gruppe B überleiten.

Nur mag es gewiß gewagt erscheinen, auf eine einzelne Münze von vorläufig nicht sicher zu definierender Art Schlüsse insbesondere metrologischen Charakters aufzubauen. Aber der Versuch ist reizvoll, der stolzen Prachtkette syrakusischer Münzen ein etwa verloren gegangenes Glied wieder einzufügen, und diese Zeilen sollen vor allem den Zweck verfolgen, andere Exemplare aufzustöbern, die vielleicht mehr Klarheit bringen könnten. Und es dürfte solche geben! In der Literatur des 17. und 18. Jahrhunderts wenigstens figurierten Münzen, die sehr wohl mit der unsrigen identisch sein könnten. Bei Torremuzza,[2] Taf. LXXX, no. 2, Text S. 79 (hier Tafel VII, 7), ist ein ähnliches Stück von Syrakus von 27 mm. Durchmesser aufgeführt:

Vs. Zeuskopf nach r. mit Lorbeerkranz, das Haar lang herabfallend.
Rs. ΣΥΡ (oben) Viergespann nach r. sprengend, Pferde parallel nebeneinander, Lenker in der R. Zügel, in der L. Zweig haltend; Abschnitt leer.

Es ist als selten ('non ita obvius') bezeichnet und dazu bemerkt: 'edidit Burmannus[3] in Tab. VI Numorum ad calcem Siculor. Dor-

syrakusischen Prägungen des 4. Jahrhunderts! Während an Head sich anschließend, z. B. Holm (*Gesch. Sic.* iii, S. 658, no. 318), Macdonald (*Cat. Hunt. Coll.* i, no. 96), Forrer (*Cat. Sir H. Weber*, i, no. 1643), Robinson (*Cat. Locker Lampson*, no. 102) den Zeitraum 345–17 zu Grunde legen, lassen Six (nach Holm, iii, S. 658, no. 318) und H. de Nanteuil (*Coll. de Monn. Grecques*, 1925, S. 119, no. 372) die Möglichkeit früherer Entstehung zu. Grose, *The McClean Coll.* i, 1923, nos. 2722–3, Taf. 96, 11–12 datiert ca. 397–87, Giesecke, *Sicilia Numism.*, 1923, S. 94, Taf. 21, 5 erst ca. 317–289!

[1] Nach Renata von Scheliha, *Dion: Die platonische Staatsgründung in Sizilien*, Leipzig 1934, eine Monographie, in der der starke Einfluß platonischer Staatsgedanken auf Dion wie auch auf Timoleon hervorgehoben wird, erscheint der Zeus Eleutherios der Münzen 'der Schützer der Gesetze und der staatlichen Ordnung, als Sinnbild der Timoleonischen Staatsgründung' (S. 99).

[2] Siciliae populorum et urbium, regum quoque et tyrannorum veteres nummi, Panorm. 1781 fol. nebst Auctarium I. Pan. 1789 und Auct. II. Pan. 1791.

[3] Gemeint ist das Werk von Professor Jac. Phil. d'Orville aus Amsterdam (1696–1751), der 1727 Sizilien besuchte: Sicula, quibus Siciliae veteris rudera, additis antiquitatum tabulis, illustrantur, ed. et comm. ad numism. Sicula etc. adjecit P. Burmannus Secundus. Amst. 1764. II voll. fol.

villii, cui similis servatur penes me.' Die auch bei Burmann (Taf. VI, no. 12, Text S. 339) abgebildete Münze (hier Tafel VII, 8), entspricht der von Torremuzza, nur ist der Zeuskopf etwas breiter gezeichnet. Beide haben sie auf der Rs. die Aufschrift ΣΥΡ (in der Beschreibung bei Burmann steht allerdings Σ . . .) und eine männliche (?) Lenkerfigur mit Zweig in der Hand. Die Rosse des Galoppgespanns sind freilich auf beiden Stücken ganz parallel gereiht. Aber das könnte auf ungenauer Zeichnung beruhen, man kennt die Unzuverlässigkeit der alten Autoren in dieser Beziehung.[1] Die beiden von Burmann und Torremuzza beschriebenen Exemplare sind in keinem Kataloge mehr aufgetaucht[2] und als verschollen zu betrachten; in der späteren Literatur haben sie demnach auch keine Beachtung mehr gefunden. In der altberühmten großen Sammlung sizilischer Münzen des Barons Pennisi in Acireale, die Frl. Prof. L. Cesano aus Rom sowie Dr. A. Hundt aus Berlin daraufhin durchzusehen die Güte hatten, sind sie nicht vorhanden.

[1] Eckhel, *Doctr. Num.* i, S. 186, kennzeichnet Torremuzza: 'Insignibus his principis indefessi conatibus si respondisset chalcographi adcuratio, qui saepe cum inscriptiones, tum typos propalam pervertit, et si in ipsis tabulis discreti fuissent numi, quorum ipse archetypa vidit, ab iis, qui sibi e Goltzio et Paruta, de quorum ipse fide non raro dubitat, fuere cogniti, nihil esset, quod ad Siciliae numismaticae perfectionem amplius possemus desiderare.'

[2] Auch Mionnet, der für etwas seltenere Stücke Torremuzza öfters zitiert, kennt sie nicht. Die Bronzemünze Mi. i, S. 310, no. 399 in Paris, von der ich durch die Freundlichkeit Jean Babelons einen Abdruck erhalten konnte, ist von der gewöhnlichen Sorte der Spätzeit *B.M.C.*, nos. 684–7.

THE USE OF COINS FOR TEACHING GREEK AND ROMAN HISTORY

J. G. MILNE

THE purpose of this paper is to suggest ways in which the evidence provided by Greek and Roman coins may be made more generally useful for the teaching of history, and to point out some of the risks against which it is necessary to be on guard. It will not deal with the political side of the evidence, both because this has been more fully exploited than any other, and also because, in Greek history at any rate, this is really secondary in importance to the literary records. We may be able to say that a Greek coin was struck to commemorate some event, but we are nearly always dependent for our knowledge of that event on literary sources: we can illustrate these by the coins, but the coins seldom add anything to our information. The historical connexions of a Greek coin are usually a matter of guesswork, and our guesses are not infrequently proved to have been wrong: for instance, Dr. Lloyd recently demolished the very attractive legend which had been constructed, and generally accepted, connecting certain coins of Selinus with Empedocles.[1] The case is of course quite different in regard to Roman coins, which are often of direct historical importance, and give evidence which cannot be got from other sources; but this need not now be emphasized. The information derivable from the coin-types for the history of religion and culture, which is of the first importance, will also be left aside for the like reason: it has been widely used and appreciated, much more so than the economic evidence to be obtained from the coins themselves; and we may begin with some warnings.

A difficulty which is often encountered by a teacher who is seeking to explain the meaning of ancient coins, especially Greek coins, to students is that their minds have to be disabused of modern comparisons: we are so accustomed to think of our coins in terms of the denominations given to them, that is, of their value in specie, and to pay little regard to their metal content, that it involves an effort of mind to grasp that among the Greeks bullion value was an essential consideration in the currency of the larger coins: that the earliest coins had no face value, and some series, such as the electrum of the Aegaean area, never had any:[2] that several cities were more con-

[1] *Num. Chron.* 1935, p. 73.

[2] The unit of electrum was the stater, which was a term of reckoning, not a

cerned throughout their history in maintaining their coinage as a method of exporting metal than as a mere medium of exchange, and relied more on the weight and fineness of their coins than on the credit of the state. There were some endeavours to establish a forced currency at artificial values over a wider area than that of the city-state, the best known of which is that of Athens in the fifth century; but no Greek community was in a position, before the time of Alexander the Great, to do this in any extensive district for any length of time. The difficulty is less when we are dealing with Roman coinages, because there is in them a greater likeness to modern conditions: from the beginning of the second century B.C. the Roman currency was a forced one, in which values were based on an original copper standard, but an attempt was made to express them in silver, and circulation was controlled by the authority of the central government: this was effective for at least four centuries, when the authority began to weaken, and a period of chaos ensued, until Anastasius made a fresh start by adopting a genuine gold standard, and so solved a problem which is puzzling English economists to-day.[1]

It is also necessary to remember that the evidence at our command is rather fragmentary: we possess only a very small part of the output of the ancient mints. There is a common tendency to over-estimate the proportion of existing coins to those struck: official records of medieval times suggest that some issues have vanished entirely, and others are scantily represented: for instance, at least 16,000 coins were struck in the first gold coinage of Edward IV, out of which only three are known to survive.[2] Such figures as are available for the Roman mint of Alexandria would suit a similar proportion there.[3] Herodotus states that a single banker, in the reign of Xerxes, accumulated a store of four million darics,[4] from which it may be surmised that the total issue of darics may have run into billions: the extant specimens are only a small fraction of this. And the frequency with which new types or varieties of coins occur makes us suspect that many issues have been lost to sight: for instance, Mr. Newell recently published a hoard of bronze coins of Magnesia, which included issues of thirty magistrates, sixteen of whom had not previously been

denomination: coins smaller than the stater were accounted as fractions of it, and might be added up into staters: for instance, the reference in Thuc. iv. 52 to a payment of 2,000 Phocaic staters must mean a payment of 12,000 Phocaic sixths, as no fifth-century Phocaic staters are known, though sixths are common.

[1] The attempt to express in gold values based on an original silver standard has broken down, after a century of trial, and no one can find a new formula.

[2] G. C. Brooke, *English Coins*, p. 148. The third specimen has been discovered since this book was published.

[3] *Num. Chron.* 1910, p. 333.

[4] Herodotus, vii. 28.

recorded;[1] and bronze is more likely to survive than gold or silver. We do not know enough about ancient dies to form any reliable estimate of the number of coins that could be struck from a single pair of dies: one hoard of Roman gold contained 334 specimens from the same dies;[2] but there is no reason to think that this was the whole output of that pair, as the hoard was not made up entirely of this one type. If the labour which must have been spent on the preparation of Greek dies is considered, it is hardly conceivable that they would not have been intended to last for some hundreds of strikings: even so, if we do not now possess more than about one in five thousand of the coins struck, the odds are clearly against our having examples from every die that was used; and if an issue was a small one, say of not more than a thousand coins, it is more likely that all have vanished than that one has been preserved.

The life of a Greek die, measured in time, would naturally vary not only according to the toughness of its metal but also according to the frequency with which it was used. At Athens, probably the busiest of all Greek mints, M. Kambanis has shown that the dies of the 'New Style' tetradrachms did not last more than four or five months at most:[3] this is the only series where we can date coins by monthly issues, but some of the mints which dated their coins by years indicate longer lives for their dies: at Alexandria Troas von Fritze found obverse dies in use for two or three years,[4] and at Aradus there are some instances of an obverse die continuing for four successive years.[5] Presumably the Greek cities, excepting Athens and the few others which put their raw silver on the market in the form of coins, only struck coins when there was a demand for them, as we do to-day, and the demand would naturally vary from year to year, again as it now does: so that a series cannot be taken as having an even distribution over the whole period of its issue, in the cases where it is possible to determine this from external evidence, and it is almost impossible to form any reliable estimate of the activity of a Greek mint at any given moment.

Perhaps the most definite economic evidence derivable from the coins themselves is in regard to the commercial connexions of the cities; and the most certain kind of information, though not the most attractive to the majority of students, is that obtained from the weights of the coins. In the Greek world the main sources of supply of the precious metals were controlled by a few states, each of which

[1] Numismatic Notes and Monographs, no. 68.
[2] *Not. d. Scavi*, 1899, p. 327.
[3] *Bull. Corr. Hell.* 1932, p. 44.
[4] *Nomisma*, vi. 24.
[5] *B.M.C. Phoenicia*, p. xxxiii.

apparently fixed its metal prices on an economic basis; and thus were originated the various standards, of which the most important in Greece itself were the Aeginetan, Corinthian, and Attic. Other states, which had no silver supplies under their own control, bought from one or another of the great silver markets by trading their goods for the silver which reached them in coin: there is no evidence of trade in bar silver in Greek times, and the composition of hoards of silver found in Egypt and elsewhere shows clearly that the silversmiths got most of their metal in the form of coins: when any other pieces of silver, such as ornaments or scrap, are found in these hoards, they only represent a small proportion of the whole.[1] If a state in this position wanted to strike coins of its own, it would naturally take the coins which had drifted into its markets in the course of trade and reuse them: they might well be of two or three different standards in their origin, but for the purposes of local circulation exact weight was a matter of indifference; and so we get coins of the same types and ostensibly the same denomination, but of different weights, in circulation side by side.[2] Some silver-producing districts also, notably Thrace, seem to have made up their metal into coins of weights to suit the demands of the markets to which they were to be sent. Thus it is a problem interesting to a mathematical mind to work out from the weights of coins the probable homes of the pieces of silver on which they were struck, and so to find out the routes of trade along which they reached their destination.

Other students will possibly find a more attractive way of arriving at the same end by investigating the restriking or overstriking of the coins. There are several degrees of thoroughness in the measures taken by Greek cities to give new face values to coins. The simplest is punch-marking, which was apparently employed in cases where the coins were treated as bullion, owing to the original guarantors having ceased to exist—such are Aegina after its reduction by Athens and Persia after the victory of Alexander—or to these guarantors having no commercial standing—as in the case of the Eleians—or on account of local prejudices—as in Egypt under the early Ptolemaic kings. This punch-marking was probably done by silver-merchants, who put a little private stamp, often a mere scratch, on the coins to signify that they had tested them and were satisfied with the quality of the metal, which could then be taken at its market value by any one who

[1] e.g. *Num. Chron.* 1886, p. 1 (Naukratis); *Rev. Arch.* 1905, p. 257 (Beni Hasan); *Rev. Num.* 1912, p. 1 (Taranto).

[2] See G. Macdonald, *Silver Coinage of Crete*, p. 23.

knew the stamp. Countermarking was a more drastic process, which might mean a more or less complete obliteration of the original types of the coins to which it was applied: when a state countermarked its own coins, the marks were usually small, as they were only to give a new value in local currency; and the guarantor was the same as before, so the badge could remain unaltered: when, on the other hand, a coin was countermarked by a foreign state, the original types ceased to have any value, and the countermarks were larger, sometimes amounting virtually to restriking. Finally, for restriking in the strict sense, a coin should be prepared by hammering or annealing, to secure the effacement of the first types: it frequently happened, however, that the mint-workmen were so careless or incompetent that, when a coin had been restruck, the original types remained partly visible. These countermarked or restruck coins provide an exercise for the detective instinct in tracing the fountain-head of the silver supply of the towns where they were ultimately issued.

A similar exercise may be found in tracing out lines of commerce through the copying of types, which is frequent in the outlying districts on the fringe of the Greek world. Some series of these copies have been studied, notably those of Athenian tetradrachms in the East and of staters of Philip II of Macedon in the West; but there is much more to be done. It seems probable that when a community in such a position realized from its experience of Greek trade the advantage of a coinage, it proceeded to imitate the types of any coins that had come into its markets, but as a rule preferred those of the city which did most trade with it, and the less popular types were gradually eliminated from the local currency.

Another clue to commercial connexions may perhaps be found in the common use of dies. It is practically certain that in the Imperial period a small town which wanted to have some coins of its own types for a special occasion would send to the nearest important mint-city for a supply—this is very evident in Asia Minor[1]—and it is not unlikely that something of the same kind was done in earlier times. There are instances of the same die being used by two independent cities in Crete, as at Eleuthernae and Hierapytna, or at Praesus and Priansus:[2] it might be supposed that the die was borrowed by one city from the other, but it is quite as probable that the striking for both cities was done at the same place. For similar

[1] See list in L. Robert, *Villes d'Asie Mineure*, p. 189. The probable reasons are stated in K. Regling, *Die Münzen von Priene*, p. 115.

[2] Reverse die of Svoronos, pl. xxviii, 23, of Priansus used at Phaestus with obverse die of type of pl. xxvii, 27.

reasons it may be surmised that in the beginnings of Greek coinage a good deal of striking was done at the main silver markets for customer cities: many of the 'island' coins of the seventh century may well have been struck at Aegina to the order of the island-cities; and the 'Wappenmünzen' at Chalcis or Eretria for towns in Euboea and for Athens before the development of the Attic silver-mines. The case would be analogous to what happens to-day, when the mint in London produces coins for states in all parts of the world, except that the London mint strikes to the standards of its customers, whereas a Greek state would certainly have dictated its own standard. It is not impossible that a similar practice of striking to order may explain the fact that the main types on Cyzicene electrum staters are frequently not Cyzicene, and often can be assigned to foreign cities, while the Cyzicene city-badge is reduced to the position of a symbol, virtually a mint-mark: these staters were circulated throughout the Greek world in interstate trade at their local exchange value, and if Athens, for example, wanted a supply of them and sent an order to Cyzicus, the Cyzicene mint might well produce a set with a type that would appeal to the Athenians.[1] This common use of dies or appropriation of types gives a field for the ingenuity of the student whose interests are artistic rather than mathematical or technical.

Apart from the evidence provided by the coins themselves, in the weights and types, a great deal of historical information should be obtainable from the study of finds; but this has not been utilized to the full, at any rate in England, owing to the inadequate nature of the records made. The fault lies at the door of the numismatists, who often do not trouble to inquire where a particular coin was found, but are content if they secure it as a specimen for their cabinets: the result is that a museum collection is apt to be of little use to the teacher. The chief part of the value of a coin as an historical document may consist in knowing the exact place where it was discovered and the conditions of the discovery: it is only in the last few years that really scientific attention has been given to recording such facts in regard to coins, and there is still a good deal of laxity in the treatment of the evidence derived from finds.

It is more particularly in reference to hoards of coins that precise evidence as to their surroundings is required, and unfortunately is often unobtainable. A mere group of coins of which nothing is known beyond the fact that they were found together tells comparatively little of their story: they may be, for instance, a chance

[1] B. V. Head, *Hist. Num.*[2], p. 523.

lot buried together at a moment of stress or a long-standing accumulation of savings, the stock-in-trade of a merchant or an official treasure-chest; and we want to be able to say under which class they fall before we can proceed to assess their historical and economic import. The surroundings in which they were discovered ought to give some clue, if only we can get them recorded. A hoard of coins turned up in a field, away from roads or houses, is probably of the first-mentioned class, hidden anywhere to be out of the way by some one who hoped to recover them at a more favourable season; and it is rarely possible to get much closer to the history of such a hoard. Hoards found in buildings are likely to be more informative, if we can learn whether they were secreted in a hidie-hole or were just put in a place where they would be ready to hand for their owner. When the origin of a hoard can be surmised with some probability, the individual coins become more instructive. A casual hoard will usually be made up of any coins that were circulating in the district, large or small, good or bad in condition, just as they came to hand at the critical moment: a savings hoard generally consists of the best standard currency and of picked coins, and, if it was accumulated over a long period of years, it will be likely to contain a series of successive issues in fine condition: a merchant's hoard, if for general trade, is commonly of a single class, but a metal-dealer's or silversmith's stock of bullion may be made up of mixed pieces of any size or standard. The economic import of these different kinds of hoards of course varies: the metal-dealer's accumulation really conveys very little, beyond the fact that the coins he had in hand were not valued in specie: the merchant's hoard or the savings hoard, on the contrary, should give useful information as to commercial relations and to local currency. There are certain snags to be avoided, particularly in the case of late Roman hoards buried at a time when specie values had broken down: the tendency of old coins to remain in circulation for long periods has also to be taken into account. But, if the main facts about the surroundings of a hoard are known, it is usually possible to extract some historical evidence from it.

For the purpose of ascertaining the currency of a district, stray finds can be quite as useful as hoards, especially if they have been carefully recorded. Single coins are of little use: an odd specimen of any country and any date may turn up anywhere: for instance, an eighth-century Indian coin was found recently on the line of a Roman road in North Wales, in a position which suggested that it might have been dropped by a traveller on that road many years ago; but it will hardly be argued that this proves the presence of Indian

traders in Wales in the eighth century. The value of the evidence of stray coins, however, increases in geometrical ratio as they accumulate: a bronze coin of Heraclius is recorded as having been found at Manchester, which proves practically nothing; but the frequency with which Byzantine bronze coins turn up on the south coast of England suggests that this region was not cut off from communication with the Mediterranean after the collapse of the Western Empire; and the fact that several gold solidi of about A.D. 600 have been found in the south of England, always near early centres of Christian missionary activity,[1] gives a clue as to one way in which the connexion could be maintained. Further, a complete list of the finds from a site which has been systematically excavated, such as Pergamum or Corinth,[2] will give a good picture of the commercial and economic history of the place: the numbers of specimens from different periods serve to indicate the intensity of the business life, and the coins from outside the district show the trading relations and possibly reveal the kind of goods imported and exported.

In dealing with the latter kind of evidence, it must be remembered that the commercial meaning of silver and bronze in Greece differed. Silver was apt to travel far, especially the larger denominations: comparatively few tetradrachms or even didrachms are found in the cities where they were struck, and the majority of the specimens that come into the market are derived from places at considerable distances from their homes.[3] The smaller the silver coin the more likely it is to turn up on its native heath, for reasons which will be obvious; but even these little things are not restricted in their distribution like the bronze. The bullion value of Greek silver was of course in most cases materially less than its face value; but the bronze coins were merely tokens, which would not be acceptable anywhere outside their home state, unless at a city in such close commercial connexion with it that there was a certainty of their being negotiable without delay or loss.[4] The result is that, in any assemblage of bronze from a Greek site, over a half will usually be of the local mint, and the rest will represent neighbouring states in numbers diminishing as they are farther away in origin. Bronze coins often

[1] e.g. Massiliote copies of Heraclius at Sarre, near Canterbury, and near Dorchester-on-Thames, and a solidus of Maurice at Dorchester-on-Thames.

[2] K. Regling, *Münzfunde aus Pergamon*: American School at Athens Reports, Corinth, vol. vi.

[3] Compare indices in S. P. Noe, *Bibliography of Greek Coin-hoards*.

[4] This does not apply to Ptolemaic bronze of the period 270–180 B.C., or to some Sicilian bronze issues.

furnish useful topographical evidence, but they are of little value for economic purposes.

Another point to be borne in mind is that, in counting up the numbers of the coins found on a site for such an investigation, a hoard counts only as a single coin. It should be unnecessary to insist on this, but in tables of site-finds there may often be seen a sudden jump at a particular point, which proves on closer examination to be due to the inclusion of a hoard as if it were a number of individual coins: this must upset the basis of comparison, and vitiate the result.

If possible, the conditions under which the coins were found should be ascertained, in order to form some idea of the conditions under which they were lost. For instance, the mere finding of coins scattered about a piece of ground does not necessarily mean that the place was occupied or frequented at the period when those coins were current. Coins are of course habitually lost round houses; and it is natural enough that they should be dropped in busy markets and trodden under foot: a visit to a market-place in the Near East, or a study of the descriptions of a medieval fair, such as Stourbridge fair,[1] will supply plenty of confirmation. But it is not infrequent to find coins in some numbers at places which seem never to have been more than cultivated fields; and attempts have been made to locate settlements on this evidence alone. If, as commonly happens, the contemporary objects found in the same area are only broken pottery and similar household wastage, the explanation, at any rate in Roman Britain, seems to be that the coins were not really lost where they were found: the ploughman did not scatter his money as he went up and down the fields; but they were dropped in the purlieus of the villa, and got swept into the rubbish-heap, and then were carted out to the fields and spread about as manure; so that they are really evidence of intensive cultivation.

These suggestions are of course far from exhaustive; an attempt to classify the varieties of hoards and casual finds would go beyond the limits allowed for this paper. But a concrete instance may be given in conclusion to show the complexity of the problems involved.

A few years ago I was inquiring for coins at Dubrovnik, and was told by a local collector that he had formerly got examples of the Greek issues of the islands off Dalmatia from Ragusa Vecchia, but the supply had ceased after the erection of some buildings along the shore. A visit to Ragusa Vecchia did not explain why the shore should have been a good hunting-ground; but the solution presented itself at Split, where I saw market-boats from the islands lying at

[1] See Defoe, *Tour of Great Britain*, p. 80.

the water's edge, and the occupants handing out goods and receiving payment over the bulwarks. If the old Greek traders did business in the same way there would be ample opportunity for dropping coins into the water, especially if arguments arose and were carried on with as much spirit as they are to-day. But the same explanation would not apply to other cases where coins are frequently found on the seashore, for example, in the harbour of Alexandria, where the process is more likely to have been much the same as on the coast of Sussex. Here, particularly at Selsey, large numbers of British and Roman coins have been obtained; but we cannot envisage a first-century market on the shore of Selsey Bill. Some fifty years ago the old man who supplied most of these coins to collectors told me how he got them, by sifting the sand in certain hollows of the clay substratum near low-water mark after a ground-swell: it was evident that the coins were simply brought by the action of the waves from the dunes, which were constantly being eroded, and gradually worked down to these hollows, where they were caught and stayed for the dredge of the expert. The accumulation of coins in these particular spots was not ancient, but recent: their original place of deposit was some distance away, and the sea had obliterated their local setting.

TWO GOLD COINS OF TYRAS

PAUL NICORESCU

THE Milesian colony of Tyras begins to coin money in the second half of the fourth century before Christ.[1] The first coins are of silver and bronze. When Lysimachus, one of the diadochi, had consolidated his dominion in Thracia and western Pontus, the Greek colonies which were under his protectorate pass through a certain prosperity and begin to coin gold pieces. These coins have on the one side the head of Alexander the Great idealized, and on the other side the image of the goddess Pallas Nicephoros on a throne with spear and shield, in exergue the trident flanked by dolphins, in the field the inscription ΒΑΣΙΛΕΩΣ ΛΥΣΙΜΑΧΟΥ, and under the throne the initials of the city. This kind of money was very much appreciated, for throughout the whole interval up to the first century before Christ many different issues were coined. Those coined later on, having the stamp copied exactly from those coined previously, are not reproduced as clearly, so that the head of Alexander is somewhat degraded. When the Greek cities passed for some time under the protectorate of Mithridates VI Eupator, they coined a new issue of this kind of money, which, however, has the head with the features of this king or of his son Pharnaces.[2] It is possible that these issues may have been coined by the subsidy advanced by Mithridates, who tried to attach the Greek cities to the vast coalition which he organized against Rome.

From Tyras we know up to the present only two gold coins of the kind. A specimen is to be found at the British Museum and was published by E. H. Minns in his classical work *Scythians and Greeks*, p. 448, Fig. 329 *bis*. We reproduce it below (Fig. 1).

The second specimen is to be found in the numismatic collection of the Roumanian Academy, donated together with other coins by the late numismatist Mihael Sutzu. This coin—a unique specimen—has been put at our disposal for the study of it and its publication

[1] E. H. Minns, *Scythians and Greeks*, Cambridge, 1913, p. 448, and footnote 1. See also Paul Nicorescu, 'The bull on the money of Tyras', in the *Bulletin of the Society of the Historical Monuments of Bessarabia*, Chişinău, 1928.

[2] B. Pick, *Die antiken Münzen von Dacien und Moesien*, i. 1 (1898), pp. 64 n. 2, 91, 154, 170; Regling, ibid., pp. 591, 606. Coins with the image of Alexander: n. 255 of Callatis; nn. 2471–3, pl. v, 6 of Tomi; those with the image of Mithridates or of Pharnaces: nn. 256 of Callatis; n. 482, pl. ii, 27 of Histria; nn. 2474–86, pl. xxi, 6 of Tomi. The cities are distinguished by the letters under the throne of the goddess Pallas: ΚΑΛ, ΙΣ, ΤΟ. Cf. B. Head, *Historia Numorum*², 1911, p. 273.

with much goodwill by Prof. Const. Moisil, the Director of the Numismatic Department of the Roumanian Academy. We see it in Fig. 2.

FIG. 1.

No. 1. 8·4 gr. Head of deified Alexander, somewhat degraded r.

Pallas Nicephoros throned l. with spear and shield; in exergue trident flanked by dolphins l.; in field ΒΑΣΙΛΕΩΣ ΛΥΣΙΜΑΧΟΥ; under throne ΤΥ.

FIG. 2.

No. 2. 8·455 gr. Head of deified Alexander (?).

Pallas Nicephoros throned l. with spear and shield; in exergue trident flanked by dolphins l.; in field ΒΑΣΙΛΕΩΣ ΛΥΣΙΜΑΧΟΥ; under throne ΤΥ. Below the hand the monogram [illegible].

The monograms are frequent on the Greek coins of the Western Pontus. Most of them represent names of magistrates or native kings. Their decipherment presents many difficulties.[1] The monogram on our coin represents probably the name of the magistrate or the priest under whom the issue was coined.

[1] Cf. Minns, op. cit., pp. 384, 473, 477, 486, 522, 542, 547–9, 584, 585, 594–606, 611, 629, 630, 633.

CORINTHIAN HOARD FROM CHILIOMODI

OSCAR E. RAVEL

(*Plates VIII–X*)

EARLY in 1932 we had the opportunity of securing an important find of Corinthian coins. The bulk of it was composed of a large parcel of late Corinthian staters and drachms, some staters of Leukas, 20 tetradrachms, and 12 drachms of Ptolemy I. We were able to establish after a careful inquiry that the coins were found in an earthen pot in Chiliomodi, a small locality 18 km. south of Corinth, near Nemea and Klenia. With the exception of some coins that are in the Museum of Athens, of which there was a small record in the *Bull. de Corr. Hell.* 1933,[1] practically all the coins of the hoard passed through our hands in the state in which they had been found. They were all still covered with a slight brownish patina, which did not adhere strongly to the silver, but was a kind of dusty deposit. Not a single coin presented any trace of oxidation. This was probably due to the fact that the coins were protected by the above-mentioned pot. It is absolutely certain that the Ptolemaic coins were in the hoard, and this certitude is obviously most important, as it will give us the possibility of knowing the exact date of several Corinthian emissions which until now have been quite hypothetic.

We have published another Corinthian find of pegasi,[2] the hoard from Arta. With them there were a great quantity of posthumous tetrobols of Philip II. The pegasi belonged to the very last issue of the autonomous Corinthian currency. The present find contains in large quantities many coins that must have been issued just before several coins of the Arta find. Through these two hoards we have, therefore, almost a complete sequence of the last pegasi of Corinth.

As the relative state of preservation is obviously most important in the description of the coins of a hoard, the usual degrees generally employed in catalogues would not suffice to indicate it precisely enough. We therefore employ the letter P (preservation) followed by six numbers, it being understood that P 1 indicates a coin fresh from the mint, viz. a coin that has practically not been in circulation, and this corresponds to F.d.C. The other extreme is P 6, which is

[1] About ten coins of the find of Chiliomodi have been mentioned in the *B. de Corr. Hell.* 1933, p. 238. They are now in Athens. Those that we could individualize have been added to the catalogue.

[2] *Num. Notes and Mon.*, no. 52, 'Corinthian Hoards (Arta)'.

given to the coins that are much worn. Between these the other numbers indicate the other degrees of wear.

CATALOGUE OF THE COINS

EGYPT, PTOLEMY I.

Nos. 1–6. Head of Alexander the Great r., clad in the elephant skin and aegis.

R. ΑΛΕΞΑΝΔΡΟΥ upwards, Athena Promachos r., to r. eagle on thunderbolt, over it [symbol], [symbol], to l. [symbol].

Svoronos, no. 146. Six specimens[1] all P 3, gm. 15·50 to 15·60. One has a countermark: rosette with six petals. Pl. VIII, no. 1

No. 7. Similar to above.

R. Same but near eagle [symbol].

Svor., no. 107. P 3, gm. 15·55. Countermark: flower with three petals in circular incuse. Pl. VIII, no. 2

Nos. 8–10. As above.

R. As previous, but under Athena's shield a Corinthian helmet, [symbol] and eagle.

Svor., no. 168. Three specimens, P 2, gm. 15·50–15·60. Pl. VIII, no. 3

Nos. 11–12. As above.

R. As previous, but without helmet, to r. [symbol], to l. [symbol].

Svor., no. 142. Two specimens.[2] P 2, gm. 15·50. Pl. VIII, no. 4

Nos. 13–14. As above.

R. As previous, but to r. [symbol], to l. [symbol].

Svor., no. 139. Two specimens. P 2–P 1, gm. 15·50, 15·55. Pl. VIII, no. 5

No. 15. As above.

R. Similar, with [symbol] and helmet.

Svor., no. 170. P 2, gm. 15·48.

Nos. 16–17. As above.

R. Similar, with [symbol] and bee to [symbol].

Svor., no. 153. Two specimens. P 3–P 2, gm. 15·50.

Nos. 18–21. As above.

R. Similar, with [symbol] to r., no symbol.

Svor., no. 110. Four specimens. P 3–P 2, gm. 15·50.

Nos. 22–8. As above.

R. Same type, no symbol, eagle under shield, Athena Promachos between Δ and O.

Svor. —. Drachms, seven specimens,[3] all P 1, gm. 3·65 to 3·70. Pl. VIII, no. 6

[1] One in Athens. [2] One in Athens. [3] One in Athens.

Nos. 29–33. As above.
R. as previous, to ΔO.
Svor. —. Drachms, five specimens, all P 1, gm. 3·65 to 3·70.
Pl. VIII, no. 7

CORINTH.

No. 34. Pegasus with pointed wing flying l. beneath ϱ.
R. Head of Peirene l., wearing necklace and ear-ring, hair rolled, to r. Δ in wreath.
B.M. Cat. Corinth, no. 297. Drachm, P 6, gm. 2·70. Pl. VIII, no. 8

No. 35. As above.
R. Head of Peirene l., hair bound with wreath of reeds,[1] behind to r. axe placed sideways.
B.M. Cat. —. This drachm corresponds to the stater *B.M. Cat. Unc. Mints*, no. 7. P 5, gm. 2·70. Pl. VIII, no. 9

No. 36. As above.
R. Head of Peirene l., wearing necklace and ear-ring, hair in sphendone, the ends of the hair at the top of the head tight and falling loose behind, to r. A.
B.M. Cat., no. 181. P 6, gm. 2·50. Pl. VIII, no. 10

No. 37. As above.
R. Head of Peirene l., wearing ear-ring and necklace; hair rolled round head, three formal curls on neck, to r. A (not Γ as it is in the *B.M. Cat.*), large flaw on the nymph's nose.
B.M. Cat. Corinth., no. 385. Drachm, P 5, gm. 2·52. Pl. VIII, no. 11

No. 38. As above.
R. Head of Peirene l., wearing necklace and ear-ring, hair flowing down on neck, to l. A.
B.M. Cat. Corinth, no. 274, the Y is not visible on this specimen, which passed through Hess's sale, 1934, no. 339. Drachm, P 5, gm. 2·50.
Pl. VIII, no. 12

Nos. 39–53. As above.
R. Head of Peirene l., wearing ear-ring and necklace, hair in sakkos, to l. I under chin.
B.M. Cat. Corinth, no. 355. Fifteen drachms, P 5–P 3, gm. 2·68–2·72. Almost all from different dies. Pl. VIII, no. 13

Nos. 54–5. As above.
R. Head of Athena l., wearing Corinthian helmet bound with olive-wreath, to r. cornucopia containing two ears of corn, in field A–P.
B.M. Cat. Corinth, no. 257. Two staters, P 5, gm. 8·48–8·50.
Pl. IX, no. 1

[1] The woman's head on the Corinthian drachms is certainly not that of Aphrodite. It is quite certain that it represents the local nymph Peirene. The wreath of reeds on the present coin is a proof that it represents a water-nymph. Cf. *Aréthuse*, 1929, no. 22. *Contribution à la Num. Corinthienne*, pp. 5–6.

No. 56. As above.
R. Similar head l. to r. aegis on which Gorgon's head, in field A–P.
B.M. Cat. Corinth, no. 253. Stater, P 5, gm. 8·48. Pl. IX, no. 2

No. 57. As above.
R. Head of Athena l. wearing plain Corinthian helmet, to r. Triton holding trident r. in field A–P.
B.M. Cat. Corinth, —. Stater, P 5, gm. 8·50. Pl. IX, no. 3

Nos. 58. As above.
R. Similar head l. wearing helmet bound with olive-wreath, to r. plough, in field A–P.
B.M. Cat. Corinth, no. 250. Stater, gm. P 5. 8·50.

No. 59. As above.
R. Same head l., to r. ivy-leaf, in field A–P.
B.M. Cat. Corinth, no. 248. Stater, gm. 2·45.

No. 60. As above.
R. Same head l. to r., boar l., in field A–P.
B.M. Cat. Corinth, no. 247. Stater, P 5, gm. 8·49. Pl. IX, no. 4

Nos. 61–2. As above.
R. Head of Peirene l. wearing sphendone and necklace. In field A–P.
B.M. Cat. Corinth, no. 260. Two drachms, P 4, gm. 2·45.
Pl. IX, no. 5

Nos. 63–5. As Above.
R. Head of Athena l. wearing plain Corinthian helmet, to r. Zeus seated r. holding in his r. raised hand thunderbolt and on his left outstretched hand an eagle. In field Δ–I.
B.M. Cat. Corinth, no. 308. Three staters, P 3, gm. 8·50. Pl. IX, no. 6

No. 66. As above.
R. Similar head l., to r. Artemis huntress standing r., shooting with bow. In field Δ–I.
B.M. Cat. Corinth, no. 312. Stater, P 3, gm. 8·50. Pl. IX, no. 7

No. 67. As above.
R. Same head l., to r. Artemis running l. holding in her r. hand a torch and a spray of olive over her l. shoulder,[1] in field Δ–I.
B.M. Cat. Corinth, no. 317. Stater, P 3, gm. 8·48. Pl. IX, no. 8

No. 68. As above.
R. Similar head l., to r. Artemis running l. holding two torches, in field Δ–I.
B.M. Cat. Corinth, no. 314. Stater, P 3, gm. 8·51. Pl. IX, no. 9

[1] In the description of the *B.M. Cat.* the spray is not mentioned. Probably it is not visible on the London specimen.

Nos. 69–78. As above.

R. Similar head l., to r. Artemis running l. holding long torch with both hands, in field Δ–I.

B.M. Cat. Corinth, no. 315. Ten staters, all from different dies, P 4–P 3, gm. 8·48–8·52. Pl. IX, no. 10

Nos. 79–98. As above.

R. Similar head l., to r. Athena standing on base slightly turned towards l., holding spear over her l. shoulder, in field Δ–I.

B.M. Cat. Corinth, no. 311. Twenty staters,[1] P 3–P 2, gm. 8·50–8·53. Pl. IX, nos. 12–13[2]

Nos. 99–102. As above.

R. Similar head l., to r. bearded and draped term facing, holding in his r. hand caduceus downwards and in his l. cornucopia. In field Δ–I.

B.M. Cat. Corinth, no. 318. Four staters, P 4–P 3, gm. 8·50–8·60. Pl. IX, no. 14

No. 103. As above.

R. Similar head l. to r. Athena standing l., holding Nike on her r. hand and spear in her left. In field Δ–I.

B.M. Cat. Corinth, no. 309. Stater, P 2, gm. 8.50. Pl. IX, no. 15

Nos. 104–13. As above.

R. Head of Peirene l. wearing necklace and ear-ring, hair in sakkos decorated with pointed greca, in field Δ–I.

B.M. Cat.—. Drachms, two specimens, P 4, gm. 2·45–2·48. Pl. X, no. 1

Nos. 114–43. As above.

R. Head of Peirene l., hair in plain sakkos, in field Δ–I.

B.M. Cat. Corinth, no. 322. Thirty drachms, all from different dies, P 4–P 3, gm. 2·68–2·70. Pl. X, nos. 2, 3, 4

No. 144. As above.

R. Head of Athena l., wearing Corinthian helmet, to r. Athena standing facing, holding shield and spear, in field A–Y.

B.M. Cat.—. Stater, P 2, gm. 8·53. Pl. X, no. 5

No. 145–54. As above.

R. Similar head l., to r. wreath, in field A–Y.

B.M. Cat.—. Ten staters, P 2, gm. 8·48–8·53. All from different dies. Pl. X, no. 6

Nos. 155–62. As above.

R. Similar head l., to r. female figure standing facing (Artemis ?), holding torch and cornucopia, in field A–Y.

[1] One in Athens.

[2] The specimen illustrated under no. 12, Pl. IX, has a flaw under Athena's neck-truncation, which resembles a hydria.

B.M. Cat. Corinth, no. 273. Eight staters, P 2, gm. 8·50–8·52. Pl. X, nos. 7, 8[1]

Nos. 163–5. As above.
R. Similar head l., to r. leopard running l., in field A–Y.
B.M. Cat. Three staters, P 1, gm. 8·50. Pl. X, nos. 9, 10

No. 166. As above.
R. Head of Peirene (?) laureated l., with hair flowing in neck, in field A–Y.
B.M. Cat. Corinth, no. 274. Drachm, P 3, gm. 2·70. Pl. X, no. 11

Nos. 167–70. As above.
R. Head of Peirene l. wearing ear-ring and necklace, hair wavy and tied behind, leaving the ends loose, in field A–Y.
B.M. Cat. Corinth, no. 276. Four drachms,[2] P 1, gm. 2·68–2·70. Pl. X, nos. 12, 13

Nos. 171–3. As above.
R. Head of Peirene l., hair gathered up behind and tied, leaving loose ends, in field A–Y.
B.M. Cat. Corinth, no. 275. Three drachms, P 1, gm. 2·70–2·75. Pl. X, no. 14

Nos. 174–87. As above.
R. Head as previous, hair bound with crossed cord, leaving behind loose wavy ends, in field Δ–O.
B.M. Cat. Corinth, no. 583 (under O), 14 drachms, P 1, gm. 2·70–2·78. Pl. X, nos. 15, 16

LEUKAS.

No. 188. Pegasus flying left, beneath Λ.
R. Head of Athena l., wearing Corinthian helmet, to r. T–I and Macedonian helmet bound with wreath.
B.M. Cat. Leukas, no. 108. Stater, P 6, gm. 8·46.

No. 189. Pegasus flying r., beneath Λ.
R. Similar head r., to r. A and vine with grapes hanging over an amphora.
B.M. Cat. Leukas, no. 89. Stater, P 5, gm. 8·46.

Nos. 190–9. As above.
R. Similar head but l., same symbol to r.
B.M. Cat. Leukas. —. Two staters, P 5, gm. 8·45–8·50.

[1] On the specimen illustrated on Pl. X, no. 18, the figure does not seem to hold a torch, but rather a branch with several leaves.
[2] One in Athens.

No. 192. As above, but Pegasus flying l.

R. Similar head r., to l. Λ and Hermes r. with his foot raised and tying his sandal, his chlamys and petasos hanging at his shoulder, his caduceus projecting in front.

B.M. Cat. Leukas, no. 61. Stater, P 4, gm. 8·50.

Nos. 193–5. As above.

R. Similar head but r., to l. Λ and mast with yard (stylis).

B.M. Cat. Leukas, no. 97 (monogram not visible). Four staters,[1] P 5–P 4, gm. 8·45–8·50.

The coins have been classified only according to their state of preservation. Those that are worn, being the oldest, are therefore described before those of better condition.

The large proportion of Ptolemaic coins that we find in this hoard is of great interest. Besides the tetradrachms that show more or less traces of wear, there are twelve drachms of an unpublished variety, which are all in brilliant condition. Not a single one shows any wear; they all look as if they were just out of the mint at the time the treasure was buried. It is obvious that if these drachms were struck in Egypt they could not be found in such condition in a place near Corinth.

The other coins of the hoard in similar condition are the fourteen drachms, nos. 174–87. These coins, too, look as if they were fresh from the mint. Both Ptolemaic and Corinthian drachms have exactly the same letters Δ–O, on the reverses. On nos. 29–33 the letters ΔO are situated on the right side of Athena Promachos, while on nos. 22–8 the letters are disposed in the same way as those we find on the Corinthian drachms. On Plate X, nos. 17–18 are the enlargements of one of the Ptolemaic and one of the Corinthian drachms. It can be seen that not only are the letters Δ–O the same, but they are placed in the same way and have the same shape and the same size. They look almost as if they were made with the same punches. The similarity is so great that it cannot be a mere coincidence: these Δ–O are not only the initials of the same mint official, but they must have been made in the same mint. It is therefore very probable that all these small denominations were struck in Corinth. If so, the magistrate who signed Δ–O must have been in office during the short Ptolemaic domination of Corinth, between 308 and 306 B.C. In that case the dating of the Ptolemaic tetradrachms of Rhodian standard cannot be as Svoronos supposes.[2] In fact, all the tetra-

[1] One in Athens.

[2] *Τα νομ. Του κρατους των πτολεμαιων* I. v, p. *ριγ* and III. v. p. 51.

drachms that we find in this hoard are of Rhodian standard and show some wear, while the above-mentioned drachms are fresh from the mint; therefore they must have been issued before. But if the drachms were struck in Corinth, then the tetradrachms of Rhodian standard could not have begun to be struck after the battle of Salamis in 306 B.C.

The tetradrachm of Attic standard with Alexander's head clad in elephant's skin illustrated by Svoronos, op. cit., Plate I, no. 18, has on the reverse in front of Zeus Aetophoros a Pegasus as symbol. Another similar coin illustrated on the same Plate, no. 17, shows a thunderbolt as symbol; both coins have the obverses from the same die. Therefore these coins come certainly from the same mint, and the symbols thunderbolt and Pegasus cannot represent a mint mark. Svoronos noticed this fact, but supposed that the coins with Pegasus might have been struck in Egypt for the garrison of Corinth in the years of the Ptolemaic domination. Dating these early Ptolemaic coins to 308–6 B.C., he was naturally obliged to place the coins of Rhodian standard at a later date. Regling already remarked that it is more probable that the group 18–24 should be dated 321–18 B.C.[1] We quite agree with him, and we are convinced that the Pegasus symbol has nothing at all to do with Corinth. Is it likely that the symbol only meant that the coins were made for the Corinthian garrison? If the Ptolemaic soldiers wanted to be paid in Egyptian currency, would they not have been quite satisfied with the normal money they were accustomed to have? Was it really so necessary that the coins should bear the special mark of Corinth? If the Egyptian mint had to supply different coins for each army or group of soldiers, one can see the consequent complications this proceeding would have led to. The symbols of post-Alexander coins may sometimes really represent a mint-mark, although it has been proved that not all symbols can be taken for such, but in this case we have two coins with different symbols—the thunderbolt and the Pegasus—and these two coins are found to have been struck from the same obverse die. It is obvious that they cannot have been struck in two different mints; therefore it is quite certain that these symbols are not mint-marks. Svoronos's suggestion, which was the only one he could find in order to connect the Pegasus with Corinth, is certainly very far-fetched and has to be definitively discarded.

It was chiefly this coin with the Pegasus that supplied Svoronos with a fixed point, from which he derived the dating of the other issues of Ptolemy I, before the latter named himself king.[2] It is very likely

[1] Op. cit., *Urteile*, p. 459. [2] Op. cit., pp. γ ff.

not only that the Rhodian standard was established long before the battle of Salamis, but that Attic and Rhodian standards were contemporary and only meant for different places. This hypothesis seems to be confirmed by the fact that no drachms of Attic standard are known and that some drachms have the same letters and monograms that are found on tetradrachms of Attic standard. Consequently there is no valid objection to the suggestion that the drachms might have been struck in Corinth, as the present find seems to indicate.

This conclusion is of great importance for the Corinthian chronology, as up to now we had not known a single reliable date for all the long coinage of Corinth. All the dating accepted by modern numismatists was only conjectural and based on stylistic considerations, which in many cases are certainly misleading.

We now know for certain that the Corinthian drachms with Δ–O were struck under Ptolemy's domination; therefore they should be dated 308–6 B.C. We are certainly not far from the truth if we say that they were issued in 307 B.C. With the same magistrate's initials no pegasi are known. Probably none were struck under Ptolemy I, and these drachms represent the last regular issue of autonomous Corinthian coins. After these, the few pegasi that are known have monograms, are of very bad style, and often are of irregular weights. These pegasi were represented in the Arta find.[1] We supposed that these very last coins of Corinth were issued under Polysperchon: from the present find we see that we placed them too early—they must have been issued after Ptolemy I left Corinth, perhaps under Cassander, between 306 and 304 B.C.

The series of Corinthian coins, staters, and drachms with A–Y are in very good preservation. These coins must have been issued just before the drachms with Δ–O, and the series with Δ–I must have preceded it. We have therefore a sure sequence: Δ–I : A–Y : Δ–O.

The series with Δ–I in all probability preceded the one with A–P, but the magistrate A–P must have been in office for a very long time, as the conservation is most unequal. Some coins are much worn, and others are less so. In this series there are two distinct groups of coins, one of good style with a small Athena's head, like nos. 54–5, and another with a large, rather coarse Athena's head, like nos. 58–60. These are certainly the last.

We think we may safely date the series with A–Y to 310–9 B.C., as the preservation of the drachms is almost the same as that of those

[1] *Num. Notes and Mon.*, no. 52.

with Δ–O. The series with Δ–I may be dated 315–10 B.C. For the series with A–P the date must be much older, but it would be hazardous to fix an exact year to it.

It is important to observe that in the present hoard we have a large quantity of specimens of each series, from which we can take a good average preservation, so that there is no danger of basing our deductions on some isolated well-preserved coin which, of course, might be well preserved for some fortuitous reason and could therefore mislead our judgement.

We feel obliged to observe that Professor Sir C. Oman guessed rightly the above-mentioned sequence, although he only based his conclusions on stylistic considerations.[1]

The series Δ–I shows various symbols all representing gods. Some of them are placed on a linear base. It is therefore certain that these symbols reproduce some statues that must have been in Corinth; probably some still existed at the time of Pausanias's visit. Mr. A. Blanchet first noticed that these symbols must have represented statues and published an interesting paper on the subject.[2]

It is remarkable how carefully these symbols are engraved. In spite of the very small dimensions, every detail is visible. We find Zeus Aetophoros, but hurling a thunderbolt, Athena with spear over her shoulder, Athena Nikephoros, a terminal bust of Hermes with caduceus and cornucopiae, and several different representations of Artemis. We have Artemis Phosphoros with two torches, another with a single long one, Artemis huntress shooting with bow, and one racing with a torch and a branch on her shoulder, probably a spray of olive.

Several of these representations of Artemis are common on Greek vases and as statues, but the last one is, we believe, quite new.

It is noteworthy that all the known symbols of this series are represented on coins of the present find, and what is more important, all the coins with these different symbols are practically in the same state of preservation.

It is known that the symbols are generally explained as the signets of subaltern mint officials, who changed every year, while the initial represented the signatures of the magistrates responsible for the issues. Therefore, from the present find we should conclude that the magistrate Δ–I was in charge at least for eight years and that under him he had eight officials, one for every symbol and for each year, as there are eight different symbols. In this case each symbol would

[1] Sir C. Oman, 'Some Problems of the Later Coinage of Corinth', *Num. Chron.* 1926.

[2] *Rev. Num.* 1907, 'Statues sur les statères de Corinthe'.

represent the emission of the year, and we should have between two of them, viz. the first and the last, eight years. If this theory were true, some of the coins of the find would have been in circulation eight years more than others. Then it is obvious that we should find some coins more worn than others, which is not so, as all the coins with Δ–Ι are of the same preservation and look as if they were issued at the same time. We have therefore through this find the definitive evidence that the hypothesis of the magistrates changing yearly is certainly not possible. The meaning of the symbols has therefore still to be explained. To find a probable solution of the problem is impossible without a sound base on which to build a new theory: we know only that the coins with the same initials and different symbols are contemporary, and this is certainly the most important piece of evidence that we can secure from the study of the present find.

The series with Δ–Υ shows a striking peculiarity. All staters, with the exception of nos. 163–5 with the leopard-symbol, are of very coarse style. They are so summary that often one cannot recognize the symbols. On the other hand, the pegasi with the leopard and all the drachms are of exceptionally good style. The lovely small girls' heads we find on these small denominations are really wonderful, and they look as if they were made in the fourth century, while the pegasi with standing figure look as if they belonged to the end of the third. If these coins had not the same initials, we should certainly feel obliged to place them in different periods. It is obvious that the dies of the pegasi with leopard and the drachms were made by a very good artist, while the other dies were made by an inferior engraver. This is another proof that we cannot rely on style for the classification of Greek coins.[1]

We may conclude that this find shows that during the Ptolemaic domination the circulation of the local currency was still normal in Corinth. The Ptolemaic coins were in all probability only used to pay the troops of the invader. We may therefore imagine that the little treasure represented the savings of a Ptolemaic soldier who, when the garrison left and the town passed over to Cassander in 306 B.C., took it away with him. Probably soon after he left the town, as Chiliomodi is only 18 km. from Corinth, he must have thought it dangerous to have the coins with him in unsettled times, and felt it safer to bury the lot in a lonely place, intending to dig it up again when more peaceful times would allow him to do so.

[1] *Rev. Num.* 1932, 'Contr. à la Num. Corinthienne', p. 16 f.

EIN FUND ARCHAISCHER MÜNZEN VON SAMOTHRAKE

WILLY SCHWABACHER

(*Tafel XI*)

VON der archaischen Münzprägung der thrakischen Inseln kennen wir bisher allein die Statere, Drachmen und Kleinmünzentypen von Thasos. Von den anderen Inseln sind uns nur Münzen aus späterer Zeit erhalten: Von Imbros aus der zweiten Hälfte des 4. Jahrhunderts v. Chr., von Lemnos die frühesten vor 350 v. Chr. und von Samothrake die ersten um 300 v. Chr. Daß die zuletzt genannte heilige Insel der Kabiren, wie Thasos, schon im 6. Jahrhundert v. Chr. eine eigene Münzprägung gehabt hat, deren Denkmäler wir zum Teil besaßen, ohne sie erkannt zu haben, scheint nun aber ein 1930 gehobener Münzschatz zu erweisen, der im Folgenden näher untersucht werden soll.

Im letzten Band des Kataloges seiner Sammlung hat R. Jameson vier Münzen mit Sphinxdarstellungen veröffentlicht und sie, J. N. Svoronos folgend, der makedonischen Stadt Assoros zugeteilt.[1] Einer Anmerkung zu Nr. 2444 des Kataloges ist zu entnehmen, daß diese 4 Stücke 1930 auf Samothrake gefunden sein sollen. In einer Luzerner Auktion des Jahres 1933 erschienen dann wiederum 6 solcher Sphinxmünzen mit gleichen und ähnlichen Typen. Sie waren im Katalog ebenfalls Assoros, wenn auch mit Vorbehalt, zugewiesen[2] und dürften dem gleichen Funde angehört haben wie die kurz vorher in die Sammlung Jameson gelangten Stücke.

Der Liebenswürdigkeit numismatischer Freunde verdanke ich nun einige nähere Nachrichten über diesen Fund und Notizen über seinen vermutlichen Gesamtbestand. Denn er wurde, wie leider die meisten griechischen Schatzfunde, bald nach der Auffindung in alle Winde zerstreut. Diesen Mitteilungen zufolge ist der Schatz 6 Stunden von Chora, dem einzigen größeren Dorfe der Insel, an einem Ort mit dem türkischen Namen Kiourpet gehoben worden und enthielt im Ganzen ungefähr 100 Silbermünzen. Von diesem bald darauf in Dedeagatsch geschlossen verkauften Gesamtbestand sind mir bis jetzt 73 Stücke bekannt geworden. Bei ihrer nachstehenden Beschreibung sind jedoch auch jene uns bisher schon

[1] *Collection R. Jameson*, Band iv (1932), p. 27, nr. 2441–4. Vgl. *Journ. Intern. Num.* xix (1918), S. 216 f.

[2] *Catalogue Naville*, xvi (1933), Nr. 959–64.

bekannten Münzen einbezogen worden, die sich durch gleiche oder nahverwandte Typen den Prägungen des neuen Schatzes von Kiourpet anreihen lassen oder sie ergänzen.

A. SPHINXGRUPPE I

1. *Vs.* Sphinx in hockender Stellung linkshin. Die rechte Vordertatze ist erhoben. Die Flügel sind oben abgerundet und unbefiedert. Das Auge ist von vorn gesehen dargestellt. Vom Kopf fallen 2 geperlte Lockensträhnen in den Nacken. Vom Hinterkopf rollt sich eine Spiralranke nach oben. Im Felde links vor der Sphinx ʒ–A. Abschnittlinie. Das Ganze im Perlkreis.

Rs. Viergeteiltes Quadratum Incusum, in jedem Kreuzwinkel ein glattes, erhöhtes Quadrat. Stater.

(*a*) Jameson, 8·90 g. *Catalogue de la Collection R. Jameson*, Band iv, 1932, S. 27, Nr. 2441, T. CXXIX. Fund von Kiourpet. Tafel XI, 1

(*b*) Paris, 8·50 g. E. Babelon, *Traité* ii, 1 (1907), S. 627, Nr. 989, T. XXVIII, 12; *Traité* iv (1932), S. 761, Nr. 1200, T. CCCXXV, 17. A. Baldwin, *Am. Journ. Num.* xlviii (1914), S. 53, Nr. 3, T. VII, 3. J. N. Svoronos, *Journ. Intern. Num.* xix (1918), S. 217, Nr. 1 *a*, T. XVII, 16. Dieudonné, *Rev. Num.* 1905, S. 458. Tafel XI A

(*c*) Wien, 8·00 g. J. N. Svoronos, *Journ. Intern. Num.* xix, 1918, S. 217, Nr. 1 b, T. XVII, 15.

(*d*) Im Athener Münzhandel: Rohe moderne Fälschung (nach 1930) nach dem Vorbild von (*a*).

B. *Vs.* Sphinx linkshin hockend wie vorher, jedoch ohne ʒ–A. Geperlte Abschnittlinie. Perlkreis.

Rs. Viergeteiltes Quadratum Incusum, in den Feldern: Σ–A/M–O Drachme.

(*a*) Ehemals Sammlung Pozzi, 3·39 g. *Catalogue Naville* i (1920), Nr. 2380, T. LXXI. J. N. Svoronos, *Journ. Intern. Num.* xix (1918), S. 217–18. Hiernach E. Babelon, *Traité* iv, 1932, S. 762, Nr. 1201 (vielleicht aus Sammlung Anderson, Athen?) Tafel XI B

(*b*) Verschollen. Einst, im Handel in Athen. Vgl. J. N. Svoronos, *Journ. Intern. Num.* xix (1918), S. 217–18.

Nach dieser im Funde von Kiourpet nicht vorkommenden Drachme hat der verstorbene Athener Fälscher C. Christodoulos Falschstempel hergestellt: Vgl. J. N. Svoronos, *Synopsis de mille coins faux* etc., Nr. 54.

2. *Vs.* Sphinx wie vorher. Abschnittlinie geperlt. Perlkreis.

Rs. Viergeteiltes Quadratum incusum, die 4 Felder fein granuliert. Hemidrachme.

(*a*) Jameson, 1·94 g. *Cat. Coll. R. Jameson* iv, 1932, Nr. 2442, T. CXXIX. Fund von Kiourpet. Tafel XI

(*b*) Empedokles, Athen, 1·90 g. Fund von Kiourpet. Tafel XI
(*c–d*) Naville xvi (1933), Nr. 959–60, T. 32. 1·91 g. und 1·96 g. Fund von Kiourpet.
(*e–h*) Spink & Son Ltd., London. Fund von Kiourpet.
(*i–k*) Privatbesitz. Fund von Kiourpet.
(*l–n*) 3 weitere Exemplare im Funde von Kiourpet nach Notizen.

3. *Vs.* Sphinx wie vorher. Abschnittlinie glatt. Perlkreis.
Rs. Bärtiger Kopf rechts im korinthischen Helm, im Quadratum Incusum, das innen von starken Perllinien umrandet ist. Diobol.

(*a*) Jameson, 1·24 g. *Cat. Coll. Jameson*, iv, 1932, Nr. 2443, T. CXXIX Unicum. Fund von Kiourpet. Tafel XI

4. *Vs.* Sphinx wie vorher. Ohne Abschnittlinie. Mit und ohne Perlkreis.
Rs. Viergeteiltes Quadratum Incusum. Trihemiobol.

(*a*) Empedokles, Athen, 0·95 g. Fund von Kiourpet. Tafel XI
(*b*) Empedokles, Athen, 0·90 g. Fund von Kiourpet. Tafel XI
(*c*) Naville, xvi (1933), Nr. 961, T. 32. 1·00 g. Fund von Kiourpet. Tafel XI
(*d–s*) Spink & Son Ltd., London. Fund von Kiourpet. Tafel XI
(*t*) Privatbesitz. Fund von Kiourpet.

5. *Vs.* Halbe Sphinx rechtshin, die linke Vordertatze erhoben. Flügel oben abgerundet und unbefiedert. Mit und ohne Perlkreis.
Rs. Viergeteiltes Quadratum Incusum. Obol.

(*a*) Empedokles, Athen, 0·50 g. Fund von Kiourpet. Tafel XI
(*b*) Empedokles, Athen, 0·50 g. (Ohne Perlkreis.) Fund von Kiourpet. Tafel XI
(*c-d*) Privatbesitz, 0·47 und 0·49 g. Fund von Kiourpet.

[Nr. 6–8 s. S. 115.]

B. SPHINXGRUPPE II

9. *Vs.* Sphinx linkshin sitzend, die rechte Vordertatze erhoben. Flügel gefiedert. Auge von der Seite dargestellt. Am Hinterkopf Spiralranke. Geperlte Abschnittlinie. Feiner Perlkreis.
Rs. Löwenkopf linkshin im Quadratum incusum, dessen Ränder innen von feinen Perllinien begleitet werden. Hemidrachme.

(*a*) Jameson, 2·17 g. *Cat. Coll. Jameson*, iv, 1932, Nr. 2444, T. CXXIX. Fund von Kiourpet. Tafel XI
(*b*) Empedokles, Athen, 2·07 g. Fund von Kiourpet. Tafel XI
(*c*) Naville xvi (1933), Nr. 963, T. 32. 2·17 g. Fund von Kiourpet.
(*d*) Naville xvi (1933), Nr. 964, T. 32. 2·25 g. Fund von Kiourpet.
(*e–f*) Spink & Son Ltd., London. Fund von Kiourpet.
(*g–u*) Weitere 14 Expl. dieses Typus nach Notizen im Funde von Kiourpet.

(*v*) Paris, 2·08 g. (de Luynes). Babelon, *Traité* ii, 2, Nr. 1962, T. CLIV, 16. J. N. Svoronos, *Journ. Intern. Num.* xix (1918), S. 236, Nr. 14 *a*, T. XVII, 22. A. Baldwin, *Am. Journ. Num.* xlviii (1914), S. 57, Nr. 6 *a*, T. VII, 13.

(*w*) Ehemals Sammlung Prowe, 2·10 g. *Katalog Egger* (Wien, Mai 1914) Nr. 1104, Tafel XVIII. J. N. Svoronos, *Journ. Intern. Num.* xix (1918), S. 236, Nr. 14 *b*. A. Baldwin, *Am. Journ. Num.* xlviii (1914), S. 57, Nr. 6 *b*.

(*x*) London. British Museum, 2·00 g. Unter den 'unattributed Macedonian coins'.

10. *Vs.* Sphinx linkshin sitzend, die rechte Vordertatze erhoben. Flügel ungefiedert. Feiner Perlkreis.
Rs. Windmühlenflügelförmiges Quadratum incusum. Trihemiobol.

(*a*) Privatbesitz, 0·90 g. Unikum. Fund von Kiourpet. Tafel XI

Die Betrachtung der Sphinxmünzen des Schatzes von Kiourpet muß von der wichtigsten ausgehen, dem Stater der Sammlung Jameson Nr. 1 *a* (Tafel XI, 1). Während alle anderen Stücke des Fundes anepigraphe Kleinmünzen sind, trägt er allein die Buchstaben ΣΑ. Sie sind bei dem Versuch, die beiden schon früher bekannten stempelgleichen Statere in Paris und Wien (Nr. 1 *b* und 1 *c*) bestimmten Münzstätten zuzuteilen, verschieden gedeutet worden: E. Babelon legte das Pariser Stück (Tafel XI A) zunächst zu den unbestimmten kleinasiatischen Münzen, las ΑΣ und dachte zögernd an die karische Insel Astypalaea, nachdem er Assos in Mysien, Astakos in Bithynien und Astyra in Karien abgelehnt hatte.[1] Später aber schloß er sich J. N. Svoronos' Meinung (s. u.) an.[2] Agnes Baldwin Brett sprach sich auf Grund ihrer Erfahrungen bei der Untersuchung der Sphinxreihen von Chios aus stilistischen Gründen für Nordgriechenland aus.[3] Ihr Vergleich mit den frühen Münzen der Stadt Abdera erweist sich in der Tat als fruchtbar, und der Gedanke, die von ihr ebenfalls ΑΣ gelesene Inschrift als Magistratsinitiale aufzufassen, hatte in diesem Zusammenhang manches Bestechende. Finden sich in Abdera doch solche Namen bereits früh in recht ähnlicher Form vor dem Greifenbild der Stadt.[4] J. N. Svoronos schließlich glaubte die Lösung des Rätsels der Sphinx in der von dem Geographen Ptolemaios (iii. 12. 28) erwähnten, nördlich von Amphipolis gelegenen kleinen Stadt Assoros gefunden

[1] *Traité* ii, 1, S. 630, zu Nr. 989.
[2] *Traité* iv (1932), S. 761, zu Nr. 1201.
[3] *Am. Journ. Num.* xlviii (1914), S. 54, zu Nr. 3.
[4] *Die antiken Münzen Nordgriechenlands*, ii. 1. 1, Nr. 15–40.

zu haben.[1] Und dieser Zuschreibung folgten dann E. Babelon, R. Jameson und der Verfasser des Naville-Kataloges xvi.

Der Fundort des Schatzes von Kiourpet und eine Revision der bisherigen Lesung jener merkwürdigen Inschrift des in ihm enthaltenen Staters weist nun aber auf eine neue Möglichkeit der Herkunft dieser Sphinxmünzen hin: Liest man die Legende nämlich nicht AΣ sondern ƧA, so kann Samothrake mit großer Wahrscheinlichkeit als Heimat dieser und der anderen im Schatze von Kiourpet enthaltenen Prägungen betrachtet werden. Fast zur Gewißheit wird diese Vermutung aber durch die Betrachtung einer im Funde nicht vorhandenen Münze: der Drachme Katalog Pozzi Nr. 2380 (hier Nr. B, Tafel XI B). Schon J. N. Svoronos hatte seinem 'Assoros'-Stater eine eng verwandte Prägung zur Seite gestellt, die ihm in 2 Exemplaren bekannt geworden war.[2] Leider hatte er die Abdrücke dieser Stücke verlegt ('égaré'), sodaß sie nicht abgebildet werden konnten. Die genannte Pozzi-Drachme ist jedoch möglicherweise mit einem jener Stücke identisch. Die Rs.-Inschrift dieser Prägung gab Svoronos aus dem Gedächtnis mit A–Σ/Σ–O an und suchte damit seine Zuteilung dieser Prägungen nach Assoros zu stützen. Wäre schon diese Form der Abkürzung für den Namen Assoros zum mindesten recht ungewöhnlich, so lehrt nun ein Blick auf die Rückseite der Pozzi-Drachme, daß die auf die Felder des viergeteilten Quadratum incusum verteilten Buchstaben kaum in der von Svoronos angegebenen Weise gelesen werden dürfen: Das Zeichen Σ kann, wenn es in einem Worte einmal stehend und einmal liegend vorkommt, keinesfalls den gleichen Buchstaben Sigma bedeuten! Das Zeichen im linken unteren Felde ist daher ohne jeden Zweifel ein M. Die Legende darf daher nicht retrograd A–Σ/Σ–O, sondern kann nur rektangulär Σ–A/M–O gelesen werden, analog dem auch gerade von Svoronos angeführten Fall von Tragilos.[3] So hat sie unbefangen — offenbar in Unkenntnis der Svoronos'schen Hypothese — auch der Verfasser des Kataloges der Sammlung Pozzi aufgefaßt und für die Erklärung der merkwürdigen Prägung zögernd an eine 'alliance entre Samos et Chios?' gedacht. Durch den Fundort des Schatzes von Kiourpet, mit seinen dieser ΣAMO Drachme so eng verwandten Sphinxprägungen, dürfte aber nun Samothrake als Prägestätte aller dieser Münzen die größere Wahrscheinlichkeit für sich haben. An dieser Auffassung kann uns auch die zunächst gewiß auffallende, ungewöhnliche Schreibweise des Sigma in der Legende des Staters

[1] *Journ. Intern. Num.* xix (1918), S. 217–18.
[2] a. a. O., S. 217. Vgl. auch *Traité* iv (1932), S. 762, Nr. 1201.
[3] *B.M.C.* (Macedonia), S. 130.

nicht mehr beirren: sie findet sich zudem, gerade in dieser Epoche durchaus analog am Anfang des Ethnikons einiger syrakusischer Münzen.[1]

Außer dem einzigen Stater besteht der Schatzfund nur aus Kleinmünzen vom Nominal der Hemidrachme an abwärts. Sie scheinen alle derselben Fabrik anzugehören. Man wird die Münzstätte nach alter Erfahrung daher schon deshalb nicht allzu weit vom Fundort entfernt zu suchen haben: die Insel Samothrake entspricht dieser Bedingung nun gewiß besser als das weit nordwestlich, bei Amphipolis auf dem Festland, lokalisierte Assoros.

Unter den Kleinmünzen des Schatzes von Kiourpet finden sich nun eine Reihe von Prägungen, die den Sphinxtypus des bereits bekannt gewesenen Staters und der Pozzi-Drachme in 4 weiteren bisher unbekannten Fraktionen zeigen: Nr. 2–5 unserer Liste. Die Hemidrachme Nr. 9, die einem etwas veränderten Typus angehört, war dagegen schon aus 2 früher publizierten Exemplaren bekannt und lag in einem weiteren Exemplar unerkannt unter den unbestimmten makedonischen Münzen des Britischen Museums.[2] Agnes Baldwin hat diese, aus mehreren variierenden Stempeln bekannte Sphinx mit der des ϽA-Staters verglichen und bereits derselben nordgriechischen Münzstätte zugewiesen.[3] Die jetzt vorliegende Fundevidenz ergibt eine schöne Bestätigung ihrer Vermutung. Ein vereinzelter Trihemiobol des Fundes (Nr. 10) stellt schließlich noch eine bisher unbekannte Fraktion dieses Sphinxtypus auf ähnlicher, fortgeschrittener Stilstufe dar. Bei den restlichen Fundstücken handelt es sich um 4 bisher nicht bekannte Prägetypen archaischer Kleinmünzen, die weiter unten beschrieben und besprochen werden sollen.

Die Sphinx der Gruppe A unserer Prägereihe ist mit vollem Recht mit der Greifendarstellung der Münzen von Abdera verglichen worden.[4] Die Stadt liegt der Insel nicht ferne, nordwestlich, an der thrakischen Küste. Die Münzen der Gruppe II der Abderaprägung (512–478 v. Chr.) entsprechen in überraschender Weise den neuen Fundmünzen: Das Quadratum incusum etwa der Berliner Tetradrachme *Die antiken Münzen Nordgriechenlands* ii, 1, Tafel I, 5 (No. 3) gleicht in vielem dem des Samothrakestaters. Und ähnlich

[1] E. Boehringer, *Die Münzen von Syrakus*, S. 121 und 122, R 33 und R 35 (Nr. 50 und 52). Bei R 33 steht Ϭ ebenfalls am Anfang des Stadtnamens; es ist das älteste Didrachmon der Stadt. Auch die Tetradrachmen Boehringer Nr. 60 und 61 auf S. 124 haben bei ihren Rückseitenstempeln R 39 und R 40 verschiedene Stellung des Sigma.

[2] Ich danke diesen Hinweis der Freundlichkeit E. S. G. Robinsons.

[3] *Am. Journ. Num.* xlviii (1914), S. 58.

[4] *Am. Journ. Num.* xlviii (1914), S. 54.

nahe verwandt seiner Sphinxdarstellung ist der Greif des Abderastückes: der membranartige, ungefiederte Flügel, die Art, wie die linke Vordertatze erhoben ist und wie die ganze Gestalt auf den Hinterpranken mehr hockt als sitzt — alles ist von einer Ähnlichkeit, wie sie sonst bei keiner etwa noch zu vergleichenden Prägung zu beobachten ist. Dasselbe gilt für die sitzende Sphinx der etwas jüngeren Gruppe B, Nr. 9. Auch sie findet ihre nächste Entsprechung in Abdera, etwa in einigen Stücken mit aufspringendem Greif (a. a. O., Tafel I, 14). Auf die Ähnlichkeit der Flügelbildung hat Agnes Baldwin ebenfalls hingewiesen.[1] Daß das vereinzelte Stück Nr. 10 unserer Liste in diese Gruppe eingereiht werden muß, zeigt die starke Verwandtschaft seiner ähnlich sitzenden Sphinx etwa mit den Greifen der abderitischen Triobolen (a. a. O. Tafel I, 10 und 11), deren Rückseitenbilder zu dem in dem Löwenkopf der Samothrake-Hemidrachme eine gute Entsprechung finden. Die dort fehlende Perlstabumrandung des Incusum kommt dafür sehr ähnlich in Selymbria und Maronaea vor: *Traité* ii, 1, T. LVI, 18–20 und T. LVII, 11–13. Das Windmühlenflügelincusum der Rückseite des Einzelstückes Nr. 10 bleibt dagegen singulär in unserer Serie, erinnert aber an entsprechende Bildungen in Mende[2] und Terone.[3]

C. ATHENA-GRUPPE

6. *Vs.* Kopf der Athena rechts im korinthischen Helm mit Busch; die Haare fallen in den Nacken. Auge von der Seite dargestellt. Perlkreis.
   Rs. Viergeteiltes Quadratum incusum. Diobol.
   (*a*) Empedokles, Athen, 1·10 g. Fund von Kiourpet. Tafel XI
   (*b*) Privatbesitz, 1·20 g. Fund von Kiourpet. Tafel XI
   (*c*) 3. Expl. nach Notizen im Fund von Kiourpet.

7. *Vs.* Kopf der Athena rechts im attischen Helm mit Busch und Backenklappen.
   Rs. Viergeteiltes Quadratum incusum. Hemiobol. Tafel XI
   (*a*) Privatbesitz, 0·30 g. Fund von Kiourpet.
   (*b*) Spink & Son Ltd., London. Fund von Kiourpet.
   (*c–e*) 3 weitere Expl. nach Notizen im Funde von Kiourpet.

8. *Vs.* Kopf der Athena links im korinthischen Helm; rohe Zeichnung.
   Rs. Achtteiliger Blütenstern im Quadratum incusum, das innen von Perlstäben umrandet ist. Obol. Tafel XI
   (*a*) Privatbesitz, 0·45 g. Fund von Kiourpet.
   (*b*) 2. Exemplar nach Notizen im Fund v. Kiourpet.

[Nr. 9–10 s. S. 111–12]

[1] *Am. Journ. Num.* xlviii (1914), S. 58.
[2] *Traité* ii, 1, T. li, 14–17; *Die antiken Mzn. Nordgr.* iii, 2, Taf. xvii, etc.
[3] *Traité* T. lii, 20, etc.

11. *Vs.* Stierkopf nach links, am Hals mit einer Perllinie abgeschnitten. *Rs.* Bukranion im Quadratum incusum. Hemiobol.

(*a*) Naville xvi (1933), Nr. 962, T. 32, 0·35 g. Fund von Kiourpet. Tafel XI
(*b*) Privatbesitz, 0·32 g. Fund von Kiourpet. Tafel XI
(*c*) Spink & Son Ltd., London. Fund von Kiourpet.
(*d*) Empedokles, Athen, 0·35 g. Fund von Kiourpet.

Die anepigraphen Kleinmünzen der Gruppe C des Schatzes — bis jetzt 14 Exemplare, die sich auf 4 verschiedene Prägetypen verteilen — können zwar nicht mit der gleichen Sicherheit lokalisiert werden wie die jetzt durch ihre Inschriften nach Samothrake verwiesenen Sphinxtypen, doch ist ihre Fabrik zweifellos nordgriechisch und jenen Sphinxprägungen sehr nahe verwandt. Der Athenakopf und das Incusum des größten Typus, des Diobols Nr. 6, hat eine gewisse Ähnlichkeit mit einigen bisher meist nach Akanthus verlegten Diobolen.[1] Jedoch trägt Athena dort attischen Helm und das Incusum, wie die ganze Fabrik jener Stücke, macht einen ein wenig älteren Eindruck, als der unserer Fundexemplare, die Perlkreisumrandung zeigen. Da nun die meisten hellenistischen Prägungen von Samothrake ebenfalls einen Athenakopf im korinthischen Helm auf der Vorderseite tragen, wird es nicht zu gewagt erscheinen, die neuen archaischen Fundstücke ebenfalls der Insel zuzuweisen. Nr. 8 macht allerdings gegenüber dem feinen archaischen Göttinnenkopf von Nr. 6 einen etwas barbarischen Eindruck; Nr. 7 und 11 ähneln einander stark in der Bildung des Rückseitenincusum, sodaß auch für den Stierkopf von Nr. 11 die gleiche Prägestätte angenommen werden darf. In manchen Zügen lassen diese kleinen Prägungen an die Kleinmünzen des Schatzes von Auriol denken, ohne daß sich aber eine genaue Übereinstimmung mit irgendeinem der vielen Typen jenes südfranzösischen Schatzes konstatieren ließe.

Zur Hauptreihe mit der Sphinxdarstellung zurückkehrend, bleibt zu untersuchen, ob sich ihr etwa noch andere bisher nicht lokalisierte Sphinxmünzen anreihen lassen, ob eine Erklärung für dieses eigentümliche Münzbild von Samothrake gefunden werden kann und schließlich in welche Zeit man die Prägungen des samothrakischen Schatzes zu setzen hat.

Eine Betrachtung der zuletzt von A. Baldwin zusammengestellten nicht-chiischen Sphinxprägungen[2] ergibt zunächst keine irgendwie

[1] *Die antiken Mzn. Nordgr.* iii, 2, S. 25, Nr. 18 und 19, Tafel vi, 27 u. 28; *B.M.C.* (Macedonia, Acanthus), 15–18; *Traité* ii, 1, 1720, T. liv, 24; Grose, *McClean Coll.* ii, Nr. 3124–6, u.a.

[2] *Am. Journ. Num.* xlviii (1914), T. xvii.

schlagende Übereinstimmung mit der Darstellung unserer Serie. Lediglich die großen Statere Nr. 1 und 2 der Baldwin'schen Zusatztafel, zu denen jetzt noch Parallelstücke aus einem neueren unterägyptischen Funde kommen,[1] zeigen eine gewisse allgemeine Verwandtschaft mit unserer Reihe. Auf ihren nordgriechischen Gesamtcharakter hat A. Baldwin bereits hingewiesen.[2] Die abweichende Art des Incusum und vieler stilistischer Einzelheiten — die Sphinx sitzt nach rechts auf beide Vordertatzen aufgestützt, die zweiteiligen Flügel sind gefiedert, die vom Kopf aufsteigende Spiralranke ist länger und in anderer Weise gebildet etc. — schließen aber wohl eine Einordnung dieser beiden Tetradrachmen in die Samothrake-Reihe aus. Gewiß wären die großen Stücke auch kaum anepigraph, wenn bereits die beiden nächst kleineren Nominale den Namen der Insel tragen. Zur Identifizierung dieser Stücke trägt also die Samothrake-Reihe nicht bei.[3]

Für die oft behandelte Frage nach dem Sinn der Sphinxgestalt in der griechisch-archaischen Vorstellungswelt ist die Sphinx der Samothrakemünzen vielleicht nicht ohne Bedeutung. Über die ursprüngliche Herkunft des Wesens, wie der ihm ähnlichen Mischgestalten der Sirenen, der Harpyien, Greifen, usw., aus dem Orient besteht kein Zweifel. Umstritten ist jedoch ihre Eigenbedeutung im griechischen Bereich und ihre Beziehungen zu den griechischen Göttern. J. Mavrogordato läßt zwar die Möglichkeit einer vielfach behaupteten Beziehung der Sphinx zu Dionysos in seiner Untersuchung der Chiosmünzen offen. Nach ihm hätte sich diese religiöse Beziehung jedoch später mit den auf den jüngeren chiischen Sphinxserien durch Amphora und Weintrauben symbolisierten, rein praktischen Handelsinteressen der Insel vermischt.[4] Dieser Überzeugung ist auch J. Ilberg: 'Man darf annehmen, daß die Sphinx als chthonisches Wesen Beziehungen zu Dionysos hatte, der ja auch chthonischer Gott war, und daß diese auch sonst erkennbaren Beziehungen sich nicht erst später aus ihrer Eigenschaft als Wappentier der weinreichen

[1] E. S. G. Robinson, *Num. Chron.* 1930, S. 104–5, Nr. 30–1, T. ix. Vergl. auch die Abbildung bei H. Gaebler, 'Fälschungen makedonischer Münzen, II', *S.B. d. Preuß. Akademie, Phil.-Hist. Klasse*, xxii (1935), 835 f., Taf. i, 9. Daß diese Stücke zu Unrecht für falsch erklärt wurden, habe ich in einem noch nicht erschienenen Aufsatz im *Am. Journ. of Archaeology* nachzuweisen versucht.

[2] *Am. Journ. Num.* xlviii (1914), S. 53 zu Nr. 2.

[3] Der Incusum-Punzen der großen, breiten Sphinxtetradrachmen, der mit dem zweier anderer unbestimmter nordgriechischer Tetradrachmen identisch zu sein scheint (Reitertypen, Gaebler, a. a. O., Taf. i, 10 und 11), macht für diese Prägungen eine barbarische Münzstätte des nordgriechischen Randgebietes wahrscheinlich, die unter sich ganz verschiedene griechische Münztypen willkürlich nachprägte (vgl. auch meinen noch nicht erschienenen Aufsatz im *Am. Journ. of Archaeology*).

[4] *Num. Chron.* 1915, S. 4.

Insel ergeben haben.'[1] A. Lesky hält dagegen die Verbindung der chiischen Sphinx mit Weinsymbolen für ein 'rein äußerliches Zusammentreffen des Wappentieres mit Amphora und Rebe als Abzeichen der weinreichen Insel'[2] und glaubt, daß z. B. P. Gardner mit Unrecht daraus auf dionysischen Charakter der Sphinxgestalt geschlossen habe.[3] Den chthonischen Charakter der Sphinx und der übrigen Mischwesen betonen aber neuerdings auf Grund der Denkmäler L. B. Holland, P. Demargne und E. Kunze.[4] Und wenn sich der samothrakische Kabirenkult an den einer uralten Naturgöttin anschloß, wie Fredrich glaubt,[5] so darf auch die Sphinx unserer Münzen als der chthonischen Sphäre zugehörig gelten. Ihr gehört auch Dionysos an, dessen Urheimat meist in Thrakien gesucht wurde.[6] Beide entstammen dem chthonischen Bereich und dieser allgemeine Zusammenhang verknüpft sie miteinander.

Auch für das Verständnis der eigentümlichen Blüten- oder Spiralranken am Kopf der Sphinx bietet der chthonische Umkreis die meisten Analogien. Die große Herrin der Tiere, oder später Hera,[7] trägt häufig diesen Kopfschmuck und in ihrem Gefolge außer den Sphingen auch andere Mischwesen, z. B. die Sirenen. Daß diese Spiralranke kein 'vrille de vigne' oder 'tendril' ist,[8] aber auch kein Unsterblichkeitssymbol,[9] hat zuletzt R. Herbig überzeugend dargelegt:[10] Er führt den eigenartigen Kopfschmuck der Spiralranke, der sich z. B. auch bei kretischen Terrakottasphingen der orientalisierenden Epoche findet,[11] auf 'das alte Schopfdiadem bei Sphinxdarstellungen des minoisch-mykenischen Kulturkreises' zurück. Für die Erklärung der Spiralranke am Sphinxkopf der frühen Chiosprägungen,[12] der erwähnten großen Tetradrachmen unbekannten

[1] W. H. Roscher, *Griech. und röm. Mythologie*, Sp. 1360 (1913).

[2] Pauly-Wissowa, *R.E.* iii, A, Sp. 1707 (1929).

[3] *Journ. of Hellen. Studies*, xl, 160.

[4] *Am. Journ. Archeol.* 1929, S. 173; *Bull. Corr. Héllen.* liv (1930), S. 204 f.; *Athen. Mitt.* lvii (1932), S. 131.

[5] Pauly-Wissowa, *R.E.*, i. A, s.v. Samothrake, Sp. 2225. Vgl. auch die Kybele-Darstellung der hellenistischen Münzen.

[6] P. Nilsson, *The Minoan-Mycenaean Religion*, 1927, S. 396 ff. Dagegen: Walter F. Otto, *Dionysos*, 1932, S. 51 ff. Zu diesem schwierigen religionsgeschichtlichen Problem Stellung zu nehmen, ist hier nicht der Ort.

[7] P. Wolters, *Festschrift für H. Wölfflin*, 1935, S. 176.

[8] E. Babelon, *Traité* ii, 1, Nr. 331, 334, 335 und S. 630 zu Nr. 989.

[9] J. N. Svoronos, *Journ. Intern. Num.* viii (1905), S. 40, Anm 1.

[10] Pauly-Wissowa, *R.E.* iii, A (1929), Sp. 1726 f.

[11] Poulsen, *Orient und frühgriech. Kunst*, Abb. 173 und 174.

[12] A. Baldwin, *Am. Journ. Num.* xlviii (1914), T. i, 13–23; J. Mavrogordato, *Num. Chron.* 1915, T. i, 3, 5, 10–13, T. ii, 7, 10. Ob die von beiden Autoren nach Chios lokalisierten Stücke mit Rosettenbeizeichen, sowie die mit aufgehobener rechter Vordertatze der Sphinx, wirklich nach Chios und nicht vielleicht a u c h nach

nordgriechischen Prägeortes und auch nun unserer neuen Sphingen von Samothrake ist damit wohl der richtige Weg gewiesen: Es ist ein der frühen griechischen Sphinxdarstellung eigentümliches, stets zu ihr gehöriges 'Restornament' der sehr viel älteren Sphinxgestalten griechischer Vorzeit.

Die letzte Frage nach der Zeitstellung der archaischen Samothrakeprägung soll nun zum Abschluß durch Vergleich mit den bereits herangezogenen Abderatypen, sowie aus allgemeinen Erwägungen heraus, noch eine annähernde Beantwortung finden. Trifft die durch v. Fritze und M. Strack aufgestellte Chronologie der Abderaprägung zu[1] — und sie hat bisher allgemeine Anerkennung gefunden — dann dürften die Sphinxmünzen unserer ersten Gruppe ohne Bedenken in die Zeit der II. Periode der abderitischen Prägung datiert werden, d. h. vom Ausgang des 6. Jahrhunderts v. Chr. an bis ca. 478 v. Chr. Das sorgfältige Incusum und der Stil der Sphinx berechtigen vielleicht dazu, den Beginn der Samothrake-Reihe etwas später als den der ersten Stücke der entsprechenden Abderagruppe anzusetzen. Gewiß werden die ersten Sphinxmünzen von Samothrake aber um die Jahrhundertwende, wenn nicht noch zum Teil im 6. Jahrhundert selbst, geprägt worden sein. Ihnen gleichzeitig wird man wohl auch die Kleinmünzen mit dem Athenakopf (Gruppe C, 6–8) zu setzen haben; sie müssen schon deshalb zur älteren Gruppe des Fundes gehören weil gerade diese Typen des Schatzes die stärksten Abnutzungsspuren zeigen und daher am längsten im Umlauf gewesen sein dürften. Der Hemiobol mit Stierkopf und Bukranion-Rückseite (Nr. 11) wird dagegen wohl kaum vor dem 2. Viertel des 5. Jahrhunderts entstanden sein. Die Sphinx der Hemidrachmen unserer Gruppe B (Nr. 9) entspricht stilistisch am meisten den frühen Prägungen der III. Periode von Abdera, deren Beginn um 478 v. Chr. angenommen wird. Man könnte sie — ebenso wie das ihr angefügte Einzelstück mit dem Windmühlenflügelincusum — auch noch an das Ende der II. Periode von Abdera stellen, parallel zu den um diese Zeit, etwa 475 v. Chr., gesetzten Triobolen Corpus Taf. I, Nr. 10 und 11. Jedenfalls stellen diese beiden Prägungen (Gruppe B), zusammen mit dem eben genannten Stierkopf-Hemiobol, schon deshalb die s p ä t e s t e n Stücke des Schatzes von Kiourpet dar, weil ihr Erhaltungszustand durchwegs vorzüglich zu nennen ist. Sie können deshalb nur kurze Zeit vor der Vergrabung des Schatzes

Nordgriechenland gehören, müßte noch gesondert untersucht werden. Die meisten Exemplare stammen aus unterägyptischen Funden archaischer Münzen, deren Bestände bekanntlich häufig aus nordgriechischen Prägungen bestehen.

[1] *Nomisma* iii, S. 1–30; *Die antiken Mzn. Nordgr.* ii. 1, 1 S. 19 f.

(*ca.* 470 v. Chr.?) geprägt worden sein. Mit ihnen bricht die frühe Münzreihe von Samothrake, soweit wir bis heute erkennen, ab, um erst gegen 300 v. Chr. in den bisher allein bekannten hellenistischen Prägungen der Insel eine Fortsetzung zu finden.

ANMERKUNG ZU TAFEL XI

A = Nr. 1 b (Paris)
B = Nr. B (ehemals Coll. Pozzi)

Alle anderen abgebildeten Stücke (Nr. 1–11) entstammen dem Fund von Kiourpet. Sie befinden sich heute in verschiedenem Privatbesitz.

Die Anordnung der Gruppen auf der Tafel entspricht ihrer im Text (S. 119) begründeten chronologischen Folge.

DIOGENES OF SINOPE, SON OF THE BANKER HIKESIAS[1]

C. T. SELTMAN

HIKESIAS, according to tradition, was imprisoned and the former exiled on account of *paracharaxis*, which probably meant defacement of, rather than forgery of coinage. An analysis of the coinage of Sinope, as recorded in the *Recueil Général des Monnaies Grecques d'Asie Mineure*, ed. 2, showed that the coins with Sinopean types but with Aramaic legends were not official issues of the city, but poorly made imitations, faulty and unreliable in weight, produced by unscrupulous neighbours of the city. No less than 60 per cent. of these imitative coins had been defaced with chisel-cuts in order to put them out of currency. By contrast, the good Sinopean pieces issued between 362 and 310 B.C. showed little defacement, and among the magistrates' names which figured on these good coins there appeared the name of Hikesias (*Recueil*, 2, 1. i, Pl. XXV, 16). Possibly the tradition that he had been Banker or Treasurer of the State and had 'paracharakted', i.e. defaced, coins was founded on the fact that he ordered the chisel-cutting of all inferior pseudo-Sinopean coins with a view to restoring Sinopean financial credit. Enemies had found a pretext to bring about his fall.

Diogenes, son and subordinate of the banker, exiled and embittered, the victim of spite and injustice, came to Athens filled with hatred of men and institutions, and, falling under the influence of the philosophy first expounded by Antisthenes, adopted as his slogan *παραχάραξον τὸ νόμισμα*. The great Cynic merely did to conventions and men what his father had done to the ugly inferior coins which masqueraded as the currency of Sinope; he put men out of countenance as his father had put silver out of currency.

[1] This paper is published in the *Proceedings of the Cambridge Philological Society*, cxlii–cxliv, p. 7.

ANMERKUNG ZU EINEM KIMONISCHEN TETRADRACHMON

H. WIESINGER

EINE der schönsten und bewundertsten Prägungen der griechischen Antike ist das Tetradrachmon des Kimon mit dem von vorn gesehenen Kopf der Arethusa.

Wie im Altertum eine ganze Reihe von Städten ihre Prägung diesem Vorbild anglichen, so hat in unserer Zeit seit den begeisterten und oft angeführten Worten Winckelmanns von 1808 über die syrakusische Münzprägung, 'weiter als diese Münzen kann der menschliche Begriff nicht gehen', ein glänzendes Gefolge von Forschern aller Länder sich wieder und wiederum mit ihnen beschäftigt.

Ein anscheinend geringfügiges Detail ist ihnen bisher entgangen — aber was wäre geringfügig bei dieser Materie — das zumal im Zusammenhang gesehen von tieferer Bedeutung erscheint.

1913 stellt die mit größter Akribie und feinsinnigstem Eingehen auf alle stilkritischen Fragen geschriebene *Tetradrachmenprägung von Syrakus in der Periode der signierenden Künstler* von Lauri O. Tudeer das gesamte damals bekannte Material systematisch zusammen und bringt die beiden hier zu behandelnden Stempel als Vs 28 und Vs 29. Es ist nun festzustellen, daß beide Vorderseitenstempel 28 wie 29 zwischen den rieselnden Locken der Quellnymphe *vier* und nicht wie bisher geglaubt zwei oder drei Delphine zeigen. Auf beiden Stempeln werden r. und l. vom Hals der Arethusa je ein Paar von Delphinen sichtbar, und zwar entsprechend der sanften Drehung des Kopfes nach l. ist das Paar im r. Felde voll sichtbar, im l. dagegen aus der Tiefe auftauchend verkürzt und halb verdeckt, sodaß der obere Delphin zu etwa 4/5, der untere nur mit dem Kopfteil erscheint. So wird auch im Beiwerk die plastisch körperliche Gestaltung unterstützt und die Illusion räumlich dreidimensionaler Tiefenwirkung gegeben.

Für die Vs 29 ist dies in der Beschreibung des *B.M.C. Sicily* (by B. V. Head), 1876, p. 177, No. 208, richtig mit 'four dolphins' angegeben und im beigefügten Holzschnitt dargestellt, in einigen neueren Veröffentlichungen aber wieder übersehen worden und in Vergessenheit geraten.

Auch bei Tudeer ist das Vorhandensein der vier Delphine aus der Stempelbeschreibung S. 57 nicht zu entnehmen, jedoch aus der Textgestaltung S. 187 ersichtlich.

Dagegen ist die Vs 28 aus dem künstlerisch wertvolleren, stilistisch überragenden Stempel in dieser Einzelheit bisher noch nicht richtig gesehen und beschrieben worden. Bei den zum Beleg angeführten Citaten beschränke ich mich — die Verkaufskataloge können

füglich übergangen werden — auf das Wesentlichste aus der umfangreichen Literatur.

Bei nachstehender No. 1–3 ist nicht auszumachen, ob es sich um Tudeer Vs 28 oder 29 handelt; bei No. 4–12 sind auf einigen Stücken ein oder zwei Delphine 'off the flan'.

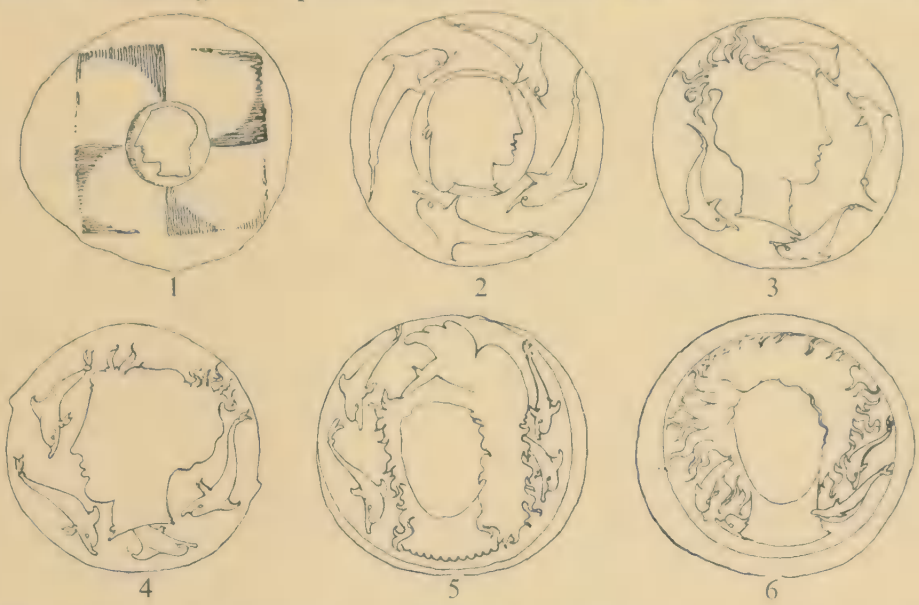
1. 1612. Paruta. *Sicilia numismatica*. Palermo.
   Tab. XL, No. 33. Der nicht ganz geglückte Kupferstich zeigt 3 Delphine.
   Der Text besagt: 'caput Iunonis Reginae . . . cum tribus Delphinis . . .'

2. 1781. Castellus, Gabriel L. (Fürst Torremuzza.) *Siciliae . . . veteres nummi . . .* Panormi.
   Tab. LXXIII, No. 9. Der Kupferstich zeigt 3 Delphine.
   Der Text lautet: '. . . cum obverso capite Arethusae & duobus Delphinis.'
3. 1791. Castellus, Gabriel L. *Auctarium II*, ibidem.
   Tab. VI, No. 3. Auf wesentlich besser gelungenem Kupferstich sind drei Delphine dargestellt, der untere linke fehlt.
   Der Text lautet: '. . . est in eo caput bene comptum Arethusae infra binos pisces. . . .'
   [Die bekannte Unzuverlässigkeit des Werkes hat bei der auch hier vorliegenden Unvereinbarkeit von Text und Zeichnung die richtig beschriebenen 'je zwei Fische' Spätere übersehen lassen.]
4. 1877. Friedlaender, J., und v. Sallet, A. *Das kgl. Münzkabinet.* 2. Aufl. Berlin.
   No. 596. Guter Holzschnitt auf dem der vierte Delphin beinah richtig gesehen ist, aber irrtümlich als Verbreiterung des Halsabschnittes aufgefaßt wurde.
   Text: 'zu seiten des Halses drei Delphine.'
5. 1913. Tudeer, L. O., a. a. O. Berlin.
   Taf. IV, Vs 28. Photogr. Abb. nach Expl. Barone Pennisi.
   S. 55. Text: 'l. ein Delphin . . ., r. zwei Delphine. . . .'
6. 1913. Jameson, R. *Collection de monnaies grecques ant.* i. Paris.
   (*a*) No. 821, Text: 'deux dauphins. . . .'
   (*b*) No. 1835, Text: '. . . trois dauphins. . . .'
7. 1914. Sambon, A. *Rivista numismatica*, xxvii, S. 44. Roma.
   Text: '. . . tre delfini, uno a sinistra guizzando di dietro la testa, gli altri due a destra, con inseguimento amoroso. . . .'
8. 1922. Forrer, L. *The Weber Collection.* London.
   No. 1613. Text: 'to left dolphin downwards; to r., two others. . . .'
9. 1924. Babelon, J. *Collection de Luynes.* Paris.
   No. 1226. Text: '. . . dans le champ trois dauphins.'
10. 1925. Nanteuil, H. de. *Collection de monnaies gr.* Paris.
   No. 358. Text: '. . . trois dauphins. . . .'
11. 1928. Robinson, E. S. G. *Ancient Greek Coins* . . . Woodward, Oxford.
   No. 115. Text: '. . . three dolphins. . . .'
12. 1929. v. Sallet, A., und Regling, K. *Die antiken Münzen*, 3. Aufl. Berlin.
   S. 22. Text: '. . . von drei Delphinen umspielt.'

Die beigegebene Abbildung, in mehr als vierfacher linearer Vergrößerung, gibt eins der besterhaltenen Stücke — aus der Sammlung des Barone Pennisi di Floristella in Acireale — wieder und zeigt bei der ungewohnten aber wirkungsvollen Beleuchtung von unten aufs klarste die beiden Delphinpaare. Die Abbildung wird dem liebens-

würdig geschriebenen und ausgezeichnet bebilderten Buch des Grafen Lanckorónski im Heimeran Verlag, München 1935, verdankt.

Jede künstlerische Gestaltung wird von der Tradition getragen. Die Fülle genialer Einzelbegabungen im alten Hellas läßt leichter die Bedeutung stilschaffender Überlieferung vergessen, die in Ägypten vor aller Augen liegt. Im eminentesten Sinne zeigt sich das strenge Gesetz der Überlieferung bei Werken der Münzkunst, die als amtliche Urkunden doppelt gebunden sind. Diese traditionelle Bindung bei persönlicher Freiheit des Einzelnen in der



Gestaltung wird besonders deutlich bei Betrachtung eines Details wie des Delphinquartetts, das alle Wandlungen des Haupttyps begleitet und aufs reinste wiederspiegelt.

An dieser Stelle sei deshalb ein kurzer Überblick erlaubt über die stilistische Wandlung in der Anordnung der Delphine an den Hauptwendepunkten:

1. Die erste syrakusische Prägung zeigt auf der Rs in kreisförmigem kleinem incusum den Kopf, ringsherum ein quadratum incusum, das sich in 4 Felder teilt, die sich hakenartig vertieft gegeneinander abheben.

2. In der folgenden etwa 510 v. Chr. beginnenden Periode ist das incusum verschwunden, der Kopf füllt mehr und mehr die Fläche, und wird gerahmt von 4 Delphinen, die in gleicher Richtung umlaufend, in gleichen Abständen von einander und vom Rand angeordnet sind. Ob ein direkter Kausalnexus zwischen den hakenförmig sich abgrenzenden 4 incusa und den 4 Delphinen besteht, wie angenommen wurde (Holm, *Gesch. Siz.* iii, 1898, S. 570, und Seltman, *Greek Coins*, 1933, S. 74), sei dahingestellt. Die kreisförmig

ornamentale Anordnung der Delphine wird auf einigen Reihen, u. a. der Demareteiongruppe durch eine weitere Kreislinie wiederholt und unterstrichen, die A. J. Evans sehr ansprechend aus dem runden incusum des ersten Typs entstanden herleitet.

3. Seit etwa 450 v. Chr. (Boehringer, *Die Münzen von Syrakus*, No. 605) werden zum erstenmal die Delphine paarweise angeordnet, malerische Momente beginnen wirksam zu werden und die Stellung der Delphine zu modifizieren; Füllung der verbleibenden Feldabschnitte wird bestimmend. Parallel wird etwa gleichzeitig auf den Vs die seelische Belebung des Quadrigentyps zur Regel durch Hinwendung der krönenden Nike zum Lenker, und erstmalig das Gespann in lebhafterer Gangart gezeigt.

4. Die malerisch illusionistischen Tendenzen der vorigen Periode verstärken sich. Etwa 410 v. Chr. schneidet Eukleidas seinen ersten Stempel (Tudeer Rs 35), auf dem einer der Delphine z. T. verdeckt wird und unter dem Halsabschnitt herauszugleiten scheint. Diese räumliche Auflockerung der Fläche entspricht so sehr dem künstlerischen Ideal der Zeit, daß sie thematisch auf einer ganzen Reihe weiterer Stempel wiederholt (Tudeer Rs 38–44, 47, 49–51, usw.) und in Variationen — auch noch von dem jungen Kimon auf seinem ersten Dekadrachmon — durchgeführt wird.

5. Noch vor Ausgang des Jahrhunderts tut Eukleidas den letzten entscheidenden Schritt in der Weiterbildung des Typs und schafft in dem großartigen ersten Entwurf des von vorn gesehenen Pallaskopfes die Basis für die scheinbar mühelos freischöpferische Meisterleistung Kimons, der die Entwicklung zusammenfaßt und abschließt. (Siehe die obigen schematischen sechs Textzeichnungen von Tetradrachmen dieser fünf Perioden und der Kimonmünze.)

6. Auch Kimon hat sich an das durch über ein Jahrhundert kanonisch gewordene Detail der vier Delphine auf den syrakusischen Tetradrachmen gebunden gefühlt, und selbst auf seiner schönsten, freiesten und eigenwilligsten Schöpfung die innere Gesetzmäßigkeit nicht verleugnet. Aber welcher Weg innerhalb des festgehaltenen Typs von der Starre archaisch gebundener, ornamental geordneter Delphine zu den frei spielenden, aus dem Wogengelock der Göttin Auftauchenden! Zu ihnen gesellt sich würdig der kleinste und jüngste, endlich wiedergefundene vierte Delphin, der nur mit dem Kopf hinter dem Hals der Göttin hervorlugt.

Wie rasch in den Händen fremder Nachahmer der Typ verwildert, zeigt in diesem Zusammenhang besonders anschaulich die gleichzeitige Didrachmenprägung von Motya, die den Kimonischen Typ

geschickt kopiert, ihn aber mit der Sechszahl der Delphine zu überbieten sucht. (*B.M.C. Sicily*, 244, No. 8, und R. Weil, *Künstlerinschriften*, S. 29.)

Soweit ich es übersehe, bleibt als einziges syrakusisches Tetradrachmon dieser Periode, das die Vierzahl der Delphine aufgibt, nur das mit IM signierte Stück (Tudeer Rs 45) übrig, seine bekannte Vereinzelung innerhalb der syrakusischen Münzreihen damit um ein weiteres neues Merkmal vermehrend. Hierin leitet es in weiterer Entwicklung zu den Arethusaköpfen der ersten Agathokleischen Periode über, die durchweg nur drei Delphine begleiten. Tudeer hat Rs 45 (a. a. O., S. 168) nur mit Zögern chronologisch und stilistisch eingereiht. Es erscheint nicht ausgeschlossen, daß der von Tudeer (S. 170) erwähnte, aber dann (S. 240) abgelehnte Head'sche Vorschlag, das Stück 10 bis 20 Jahre jünger als die übrigen signierten Tetradrachmen zu datieren, hierdurch eine neue Stütze erhält.

Der freundlich gewährten Gastfreiheit des staatlichen Münzkabinetts zu Berlin und dem Leiter seiner antiken Abteilung Herrn Professor Liegle möchte ich hier meinen aufrichtigen Dank aussprechen, ebenso Herrn Dr. Lederer, der mit stets regem Interesse und unermüdlichem Rat mich unterstützt hat.

SOME ROMAN AND GREEK IMPERIAL COINS

A. M. WOODWARD

(*Plate XII*)

THE following pieces were exhibited by Mr. A. M. Woodward.

1. LABIENUS. A modern forgery (cast) of the aureus, apparently taken from a genuine denarius of the same type. This is, in all probability, the piece of which Bahrfeldt describes and reproduces a cast (*Röm. Goldmünzenprägung*, p. 71, no. 69, and Pl. VII, 22), pronouncing it, but without seeing the original, as 'unbedingt echt'. The British Museum example (*B.M.C. R. Rep.* ii, p. 500, no. 131) is struck from different dies, but the Paris example (*Rev. Num.* 1899, p. 177), of which the obverse die seems identical with that of this forgery, comes under suspicion. If this suspicion is justified, the B.M. example remains the only genuine aureus of this type known.

2. FLEET COINAGE OF M. OPPIUS CAPITO. Sestertius, of the heavy series.

Obv. Facing heads of Antony and Octavia:

[M. ANT. IMP. TER.]COS. DESIG[I]TER [ET TERT. IIIVIR R. P. C.]

Rev. Antony and Octavia standing in hippocamp-quadriga to r.; below, Δ and a rock; behind, [HS]; around, [M. OPPIVS CAPITO PRO PR]PRAEFCLASS F. C.

This is the same type as *B.M.C. R. Rep.* ii, p. 517, no. 152, Pl. CXV. 1, but remarkable for its weight (30·37 grammes as compared with that of the B.M. example, 26·72 grammes). Willers, *Röm. Kupferprägung*, p. 113, no. 109, assumes a normal weight for the sestertius in the heavy series of 27·288 grammes (and for the *as* of 6·822 grammes), whereas Bahrfeldt in his earlier discussion (*Num. Zeitschr.* 1905, pp. 9–56) argued for an average weight of 24·95 grammes (=385 grains). If this new example is genuine, as it appears to be in spite of a somewhat cast-like surface, it must be inferred that the weight-standards of this series were even more elastic than previous research had indicated.

This specimen was said to come from Cilicia, from which region also examples of the smaller denominations of the Oppius currency were shown to the writer, in the possession of Greek refugees in Athens. This evidence is of interest in view of the still very obscure problem of their place of origin,[1] for which many suggestions have been made.

[1] Cf. the discussion in *B.M.C. R. Rep.* ii, pp. 510 ff.

3, 4. VARIANTS OF ASIATIC SILVER MEDALLIONS OF AUGUSTUS.

3. *Obv.* Bare head of Augustus to r.: IMP IX TR PO IV.
Rev. Hexastyle Corinthian temple: on architrave, ROM ET AVGVST; in field, COM ASIAE.

Plate XII, 4

[Ex Bement colln. June, 1924, no. 469.] A variant (TR PO IV for TR PO V) of C. i. 86; *B.M.C. R. Rep.* ii, p. 552, nos. 312, 313; Matt.–Syd. i, p. 61, no. 15.

4. *Obv.* Similar, but TR PO VI.
Rev. Triumphal arch surmounted by facing quadriga; on frieze, IMP IX TR POT V; in opening, S.P.R. SIGNIS RECEPTIS

Plate XII, 5

[Ex Lugano sale, May, 1925, no. 714.] A variant (TR PO VI for TR PO V) of C. i. 298; *B.M.C. R. Rep.* ii, p. 551, no. 310; Matt.–Syd. i, p. 61, no. 17.

No examples seem to have been noticed with either of these variants for the normal dating on the obverse. We must presumably accept the conclusion that the issue of these two types was not limited strictly to the period of Augustus's fifth *Tribunicia Potestas* (1 July 19 to 30 June 18) but began before and continued after those dates, The inconsistency between obv. and rev. dates on no. 4 is due to the latter legend reproducing the date as engraved on the triumphal arch which it copies. We obtain also an indication that Augustus's ninth tenure of the Imperium must at any rate have begun before 1 July 19, as on no. 3 it coincides with his fourth *Tribunicia Potestas*.

5–8. IMPERIAL BRONZE MEDALLIONS OF LYDIAN CITIES.

5. HYPAEPA. *Obv.* Septimius Severus: bust to r., laureate, draped and cuirassed: AYKAI[AC]ЄΠTI CЄOYH[POC]ΠЄ P (1·8 in.).
Rev. Cult-image of Artemis Anaitis to front, between draped standing figures of Severus (?) on r. and Caracalla (?) on l., who hold phialai in extended right hands; the latter holds also a spear upright in his left.
ЄΠICTPATΦΛ.ΛЄY.IЄ PAKOC (around)
YΠAIΠH NΩN (in exergue)

Plate XII, 2

This standing cult-image is a familiar type at Hypaepa, but the presence of the worshipping figures seems to furnish an unknown

variant. The magistrate *Φλ. Λεύκιος Ἱέραξ* is not hitherto known on coins of Severus, but is found on those of Julia Domna (*B.M.C.*, p. 114, no. 38) and Plautilla (*Hunterian Coll.*, ii, p. 453, no. 6).

6. THYATEIRA. *Obv.* Bust of Septimius Severus: to r., laureate, draped and cuirassed: ΑΥΤΚΑΙΛΟΕΠ ΟΕΟΥΗΡΟΟΠΕΡ (1·7 in.).

Rev. Standing figure of Zeus Lydios in centre, flanked by those of Athena (on l.) and Apollo Tyrimnaios (on r.).

ΕΠΙΟΤΡΑ ΑΟΙΑΤΙΚ ΟΥΕΡΜΟΓΕΝ[ΟΥΟ]
ΘΥΑΤΕΙΡΗ
ΝΩΝ (in exergue)

Plate XII, 1

All these three deities are familiar on imperial coins of Thyateira, but no example seems to be known of their appearance in such a group as this. For the magistrate's name cf. *B.M.C.*, p. 308, nos. 89, 90, and Introduction, p. cxxiv.

7. *Ibid. Obv.* Bust of Valerian: to r., laureate, wearing paludamentum and cuirass: ΑΥΤ.Κ.Π.ΛΙΚ.Ο ΥΑΛΕΡΙΑΝΟΟ (1·6 in.).

Rev. Four-legged agonistic table on which are two prize-urns with a palm-branch in each; beneath it, an amphora and a purse (?): ΕΠΙΟ.ΟΚΤ ΑΡΤΕΜΙΔΩ
ΡΟΥ. (around)

ΑΥΓ
ΟΥΟΤΕΙΑΠΥ
ΘΙΑ (above)
ΑΔΡΙΑΝΑΟΛΥΜΠΙ
Α

ΘΥΑΤΕΙΡΗ
ΝΩΝ (below)

[Ex Levis sale, Geneva (xi), 1925, no. 911 = Santamaria sale, Jan. 1924, no. 594.]

This combination of an agonistic type with the name of the magistrate *Ὀκτ. Ἀρτεμίδωρος* was hitherto known only from an incorrect description in Mionnet (*Suppl.* vii. 642, from Vaillant) where the name of the festival is given as *Αὐγούστεια ἄριστα Ὀλύμπια*.[1] A very similar reverse type, of the reign of Caracalla, is found at Tralles,[2] but I know of no other at Thyateira.

[1] *B.M.C. Lydia*, Introdn., p. cxxvii f.
[2] Op. cit., p. 352, no. 160, and pl. xxxvii, 6.

8. TRALLES. *Obv.* Bust of Caracalla: to r., laureate, wearing paludamentum and cuirass: ΑΥΚΑΙΜΑΥΡ ΑΝΤΩΝΕΙΝΟϹ ϹΕΒ (1·45 in.).

Rev. Two hexastyle temples, seen facing on a single plinth, with cult-images in the central intercolumniations: on l., Artemis (?) standing, on r., Zeus seated to left:

ΕΠΙ ΓΡ ΠΟΚΛΠ ΑΓ ΚΡΑ (around)
[ΤΙΔΟΥ] (above temples)
ΤΡΑΛΛΙΑΝΩΝΝΕ
ΩΚΟΡΩΝΤΩΝ (in exergue)
ϹΕΒΑϹΤΩΝ

Plate XII, 3

Mionnet, iv, p. 189, no. 1102, but not the same rev. die. This type is our sole authority for the name of the *γραμματεύς*, *Πό. Κλαύδιος Παγκρατίδης*. Although Tralles commemorates an unusually wide range of deities on its imperial coins, their images are not commonly represented in temples, as here.[1]

[1] *B.M.C.* 161, of Severus Alexander, shows a caduceus in an octastyle temple.

PAPERS PRINTED ELSEWHERE

Prof. E. Boehringer read a paper entitled 'Einige Münzen von Leontini', in which he outlined the development of the fifth-century silver coinage of that city in accordance with the results of his recent researches, to be published shortly in book form.

Mrs. Arthur Strong, delegate of the Pontifical Academy of Archaeology, showed on behalf of Professor Emanuele Rizzo (unable to come to London to attend the Congress owing to ill health and pressure of work) eighteen plates from his coming publication on the Greek coinage of Italy and Magna Graecia. This work, the fruit of long years of research, is to be brought out shortly by the Press of the Italian Government (*Poligrafico Italiano*). In the short précis which accompanied the plates, Professor Rizzo explained that his forthcoming volume is not so much a treatise on numismatics, as a contribution to the history of Greek art by an art-historian who is not primarily a numismatist. Coins he regards as small but precious originals which can help to a clearer knowledge of ancient Greek statuary than the often inaccurately restored copies of the Roman age, or than the popular terra-cotta images and figurines which are often deceptive because of the arbitrary variations frequently introduced into the matrixes by the *koroplastai*. These statements Rizzo makes good by an unbroken chain of comparisons between coins and works of statuary, many of which are as yet unpublished. At the same time the author repudiates as obsolete and useless former attempts to find in coins direct reproductions of statues. In accordance with the best modern authorities, he sees in every coin an independent work of art, to be judged on its own merits, though it draws inspiration from the same themes—religious or political—as the other arts of its period.

M Jean Babelon read a paper by Dr. C. F. A. Schaeffer on a hoard of archaic Greek coins found by him at Ras-Shamra which it is hoped to publish in the *Revue Numismatique*.

SECTION II

ROMAN

A FESTIVAL OF ISIS IN ROME IN THE FOURTH CENTURY

A. ALFÖLDI

IT is a strange fact that those very interesting historical coins of the fourth century with the busts of Isis or Serapis have never been closely studied. It has always been stated that they were struck under Julian the Apostate, but this was only a comfortable assumption; the evidence of the coins themselves speaks clearly against it.

It has never been attempted till now to collect all the available material for those coins, which almost always bear on the reverse the legend VOTA PVBLICA and representations of Egyptian cults—principally the *navigium Isidis*. It is of the first importance for the understanding of this series that there exists another long chain of issues with the same reverse types and the same legend, which bears the busts of the emperors from Diocletian to Valentinian II.

A close comparison of the reverse dies of the anonymous coinage (i.e. of the coins with the busts of the Egyptian deities) and of the imperial series with VOTA PVBLICA shows the surprising fact that the reverse dies of the last imperial issues reappear with quite a number of the anonymous pieces. Now, if we arrange the types bearing the effigies of Isis and Serapis by the criterion of the evolution of types, we can establish the fact that after some very careful issues a rapid degeneration sets in—the attributes of Isis, Anubis and Harpocrates, the *sistrum*, the *caduceus* and the *cornucopiae* illustrate this debasement particularly well. And, as the reverse types borrowed from the imperial series offer throughout the starting-point for the decay of the types, they must have been struck with the first anonymous issues.

This fact does not mean a contemporaneity of the first anonymous with the last imperial issues; for the badge of the public authority, the likeness of the Emperor, was for the heathen of the period of the greatest significance, whereas the busts of deities were meaningless, as long as the portrait was allowed; and the relation to the Egyptian religion was already sufficiently expressed by the reverse. It is quite certain then that the anonymous coinage only began after the use of the imperial bust was forbidden in about 378–9, actually in 380. On the other hand, the course of the decadence of types, as reconstructed by us, offers at the same time a basis for a relative chronology, and so the fifteen issues which seem to emerge for the largest denomination (with the double bust of the two Egyptian deities), point to a continuity of the yearly emissions till 395.

It is very significant that the anonymous issues were struck without any exception[1] in Rome, like the regular imperial issues. This circumstance throws a sharp light on the historical background of this pagan coinage. It undoubtedly belongs to the mighty reaction of the senatorial class in Rome against Christianity, which began about 380 and ended in 395.

The leaders of this movement, Quintus Aurelius Symmachus, Vettius Agorius Praetextatus, Virius Nicomachus Flavianus, &c., are well known. After the prohibition of the employment of the *sacra imago* of the emperors for heathen coin-types, they dared no longer risk such a *crimen laesae maiestatis*, but they changed the imperial effigy into the likeness of their gods—a trick which obviated grave juridical consequences, but enabled them to continue the ostentatious pagan manifestation. As they possessed the highest dignities in Rome, they controlled the personnel of the mint also.

The *vota publica* were the most important festival of the almost deified living emperors, celebrated on the 3rd of January. Medallions of Commodus seem to prove that already in the second half of the second century these feasts were associated with the Alexandrine ritual of the 'ship of Isis', which became a Roman festival too, and was fixed on the 5th of March. The reapplication of the ceremonies of the *navigium Isidis*—originally also a festival of happy beginning of the year—to the days of the imperial vows is very clearly seen on the 'heathen' coins of Jovianus, who was dead before the 5th of March and who is represented as consul on these coins, always a sign of the *processus consularis* exclusively in this late epoch.

The ship of Isis became the symbol of happiness on this feast-day of the New Year and the mummeries of the *navigium Isidis* accompanied the gay procession of the day. So the *carrus navalis*, which was interpreted in the Middle Ages by the Church as *carne vale* or *carne levare*, must have been in fact the starting-point of the modern carnival.[2]

The author closed with the thought that when so many were gathered from all parts of the world to celebrate the happy commencement of a Magnus Annus, when an honoured society of the greatest shipping people of the world was beginning the second year of its secular life, we might launch the sacred ship solemnly and pronounce with the priest the words: *ploiaphesia*: 'Let her sail on.'

[1] The small bronze issues from Alexandria with the Rs. DEO SANCTO NILO do not belong to our group of coins.

[2] A full documentation of these problems appears in my paper on the same subject in the *Dissertationes Pannonicae*, Ser. II, no. 7/2 (Budapest, 1937).

THE FIRST ROMAN SILVER COINAGE

FRANZ ALTHEIM

IT has been said that all historians worthy of the name may be called the disciples of Niebuhr. This statement holds good of the historians of Rome and particularly of those of ancient Rome for whom Niebuhr's conception was doubly—negatively as well as positively—determining.

The negative side may be stated in a few words. In his criticism of the old Roman tradition we are used to taking Niebuhr's fame as a matter of course. But with a man of his stamp that is not enough.[1] For though he destroyed, he also built up. This stipulation—that one should work constructively—is one which no one who busies himself with the same material can overlook.

What made Niebuhr a master of historical criticism also enabled him to build up where he tore down, to replace where he took away. The basis of his criticism was the realization that 'original documents are more reliable than the most gripping historiography'.[2] His indefatigable search for original data was also successful in that it furnished him with the very best of material for his own building. In addition to his constructive sense, Niebuhr had an insight into the general laws of historical growth, an insight strengthened by a comprehensive, all-embracing view of the past. This insight which enabled him to recognize and discard what is essentially impossible also made him attempt, according to Mommsen,[3] 'to postulate that which was demanded by the necessary laws of development, even where it was confused by or was not even apparent in tradition'.

These are two principles which are diametrically opposed. The first deals with the investigation and clarification of the individual or particular, the second comes from a general recognition. Time may have laid more emphasis on the first, less on the second, but it is none the less only in a combination of the two that the science of history, in Niebuhr's meaning as in ours, has shown itself as a whole.

The investigations of the older Roman coinage which H. Mattingly, either alone[4] or in collaboration with E. S. G. Robinson,[5] has

[1] U. v. Wilamowitz, *Geschichte der Philologie*, p. 53.

[2] U. v. Wilamowitz, l.c., p. 53.

[3] *Reden und Aufsätze*, p. 199.

[4] *Num. Chron.* 1924, p. 181 f.; *Roman Coins* (1928), p. 3 f.; *Journal of Rom. Stud.* 1929, p. 19 f.

[5] 'The Date of the Roman denarius', *Proc. Brit. Acad.* xviii; *Amer. Journ. Philol.* lvi. 225 f.

published in the past few years are a true example of that knowledge which prefers direct evidence to indirect, the original documents to that which has been written about them in literary form. I do not mean that literature has been ignored. Both investigators treat the antiquarian or historical tradition with care, even with high respect. But it is something else which is decisive for them. The over-strikes and imitations, the characteristic types and legends on the coins supply them with the information on the strength of which they are able to stake out the landmarks in the history of the older Roman coinage.

These new statements, of the correctness of which I have no doubt, signify a clarification and an enrichment of our science. At the same time there is a stipulation inherent in them. For now that the first of the two Niebuhrian principles has been satisfied in such an exemplary and masterly fashion, the second must be brought into play if we are going to attain the whole. That is to say, now that the individual or special point has been mastered one must seek to clarify it in its general connexions.

It is here that political and cultural history take their place. From the series of Mattingly's and Robinsons's results I have selected for my subject that which may well be the most incisive, namely, the late dating of the first Roman silver coinage.

I

We shall begin by leaving open the actual question of dating and first attempt to explain an assumption which, as will be seen, is a fundamental one. We are concerned with what the simultaneous appearance of two parallel coinages, one in silver and the other in copper, means.

This simultaneousness is unthinkable unless the two metals stood in an exactly determined relationship, which can only have been based on the value of the two coinages in trade. This we must postulate, even though it is not always possible to determine the details.[1] With the statements of the classical ratio of silver to copper as 1 : 120 one arrived at a value of $3\frac{1}{3}$ heavy asses for the oldest didrachm of the Romano-Campanian series. Complicated reckoning was then, of course, unavoidable. To escape it one tried to ascribe a somewhat higher value to copper and, in accordance with it, to set the ratio at 1 : 3 or at 1 : $2\frac{1}{2}$.[2] Be that as it may, we know that the Roman system became bimetallic.[3]

[1] For the following cf. T. Frank, *An Economic History of Rome*[2], 71 f.
[2] P. Le Gentilhomme, *Rev. Numism.* 1934, p. 20.
[3] T. Frank, *An Economic Survey of Ancient Rome*, i. 44.

Yet it is not merely a question of value, for both silver coinage and heavy copper represented simultaneously systems which were also regionally different. The process is not without analogy in Italy, an analogy which may help us to clarify the Roman process.

If we are not entirely mistaken, the oldest designation of the silver unit in Rome seems to have been *nummus*.[1] According to express testimony we are dealing with a word borrowed from Sicily.[2] There the name for the standard coin was *νόμος*, which signified the same thing as *στατήρ*[3] and meant nothing other than the Corinthian Pegasos stater which replaced the Attic tetradrachm in Sicily after the collapse of Athenian power.[4]

This *νόμος* was subdivided into ten litrai[5] and indicated a special Sicilian arrangement which had no analogy in the rest of the Greek world, an arrangement determined entirely by local conditions.

Unlike most of the other Italian districts, the island had accepted Greek imports. Such importation was already established in the late Mycenean Age[6] and with P. Orsi's third 'Sicel' period Greek goods flooded the market and found a distribution as rapid as it was wide.[7] In the fourth period this process was completed to such an extent that it was bound to lead to the ruin of the indigenous Sicel culture.

Greek goods and native imitations of them were to be found in enormous quantities in the Sicel towns of the interior. On the other hand, not a single native product is to be found in the true Greek cemeteries of Camarina, Syracuse, Akrai, Megara, and other places.[8] Greece controlled every department of trade, and one must assume that she was vitally interested in her continued domination of the inland market.

This situation gives us the key to the particular form of Sicilian silver coinage. Just as the natives of the interior stood in contrast to the Greeks of the coastal settlements, just as both lived under absolutely different economic conditions,[9] so were their money standards of different kinds. While the native unit of value was the

[1] Mattingly–Robinson, *Roman Denarius*, p. 50 f.; *Amer. Journ.* lvi. 227.

[2] Mattingly–Robinson, *Roman Denarius*, p. 47 f.; *Amer. Journ.* lvi. 227; P. Le Gentilhomme, l.c., p. 21; J. Whatmough, *The Praeitalic Dialects*, ii. 456.

[3] H. Willers, *Rhein. Mus.* lx. 352.

[4] H. Willers, l.c., p. 352 f.; P. Le Gentilhomme, l.c., p. 21.

[5] H. Willers, l.c., p. 352.

[6] C. and F. Cafici, *Reallex. d. Vorgesch.* xii. 150, 152, 155, 198, 200, 204 f.; F. Schachermayr, *Etrusk. Frühgeschichte*, pp. 70 f., 189 f.; A. Blakeway, *B.S.A.* xxxii. 184 f.; D. Levi in *Paolo Orsi*, p. 93 f.

[7] C. and F. Cafici, l.c., p. 146.

[8] C. and F. Cafici, l.c., p. 146.

[9] H. Willers, l.c., p. 345.

still unminted copper pound, the Greeks on the coast used minted silver coin. And while the circulation of copper was strictly limited to the interior, silver money supplied the connexion with the all-embracing sphere of Greek trade and Greek economics.

To be more precise, the unminted copper of the Sicels stood for a kind of inland standard. The bridge to the outside, to Greek and world trade, was built by those who were most vitally interested in such a connexion: the Sicilian Greeks themselves. They minted their own silver coin, a piece designated by the Sicel name litra,[1] as an equivalent to the native copper pound. This unit stood alongside the Greek system, which had, however, subdivisions of quite another kind. Still, a balance between the two was struck, in that ten silver litrae were equal to one didrachm.[2] The ten-litrae piece received the previously mentioned name of *νόμος*.

The unminted copper pound was also originally to be found in central Italy and Rome, where it was replaced, prior to the introduction of silver coinage, by the series of heavy cast copper. At this time we have the rectangular bars with types, the bull and the lightning-bearer Pegasus. Whether the oldest round copper coins preceded silver coinage or whether they are both of the same age still remains to be determined. Although already coinage, heavy copper differs sharply from all Greek coinage—first in its method of manufacture by casting, further in the change of the types corresponding to their value, and also through the designation of this value by means of a particular sign.[3] Not only *Aes Rude* but the *Aes Grave*, too, thus proves to be a thoroughly native product.

Beside it there now appeared silver coinage for the first time in the so-called 'Romano-Campanian' Series. Its dependence on the Greek model is unmistakable. The large piece of the series was the didrachm, the *nummus*, a piece which corresponded fundamentally to the Sicilian *νόμος* which, as we have already mentioned, was also a didrachm. Striking took the place of casting and we now have an inscription where *Romano* appears beside *Roma*. The designation of value, however, appears here, too, as a special characteristic.

A comparison with Sicilian conditions allows us to assume from the very first that heavy copper was also the inland standard for Rome.

[1] W. Schulze, *Kleine Schriften*, p. 276 f.; F. Ribezzo, *Riv. Indo-Gr.-Ital.* xii. 193; G. Devoto, *Silloge Ascoli*, p. 215; M. Leumann, *Glotta*, xxiii. 123; P. G. Goidànich, *I rapporti culturali e linguistici fra Roma e gli Italici* (Rendic. R. Accad. Bologna, 3 ser., vol. iv), p. 15 f.; J. Whatmough, l.c., ii. 459 f.; F. Altheim, *Studi ital. di filol. class.* 1934, p. 326 f.

[2] H. Willers, l.c., p. 352.

[3] K. Regling, *Einltg. i. d. Altertumswiss.* ii[4]. 24.

The finds show that it was meant for circulation solely within Italy and sometimes only for Latium and Campania, and its further development also points in the same direction. For, while in the following decades the silver coin remained static,[1] the heavy copper coin was sharply reduced in weight, not once but again and again. And as has been said with justice,[2] this reduction caused the as to change from a coin of inherent value to a coin of credit. In other words, it became a coin of less than its nominal worth, but still accepted at its nominal worth on the basis of the state credit behind it.[3] It is clear that the state could make such a process apply only to home trade, that is, only to its own citizens and subjects.

In Rome, too, copper and silver were again established in a hard-and-fast ratio based on the worth of the metal in each. This was done by giving ten asses, which were reduced to the sextantal standard, the same value as one denarius and therefore one drachm. Though the ratio may have varied here and there, this meant the fundamental re-establishment of bimetallism.[4] Till then, Roman coinage had been subject to the same conditions which we first observed in Sicily.

There was only one point of difference, but this was a decisive one. In Sicily it was the Greek towns which exercised political and military control. All threads of commerce ran through their hands, and thus they were able to regulate traffic with the rest of the Greek world. The introduction of the litra bridged the gap between the Greek standard and the Sicilian copper pound.

In Italy, on the other hand, it was an indigenous power which came to the fore and placed itself at the head of all tribes and towns, including those of the Italian Greeks, and then set out not only to establish commercial relations with the Hellenistic world but to maintain them with a firm hand. Silver coinage is again an expression of this determination, an expression which here really appears to be of Roman origin. For while its purpose is a connexion with the Greek world, it is none the less a thoroughly individual achievement, brought about without Greek help or mediation. On the contrary, its very nature necessitated its being set up in opposition to the silver coinages of the Graeco-Campanian[5] and southern Italian towns,

[1] K. Regling, l.c., p. 25. [2] Ibid., p. 25.

[3] I think this version surer than that of T. Frank (*An Economic History of Rome*², p. 74 f.; *An Economic Survey*, i. 44) according to whom the increase of prices after Alexander's death extended to bronze and found expression in the Roman reductions. At least, the chronological coincidence of these reductions with the fluctuations of prices in the east of the 'Oikumene' is quite uncertain.

[4] T. Frank, *An Economic Survey*, i. 44.

[5] T. Frank, *An Economic History of Rome*², pp. 73, 77 f.; P. Le Gentilhomme, l.c., p. 21.

coinages which, in the course of the third century, it actually displaced.

In this field the process is the same as in any other. No matter in what fashion or how often Rome adopts Greek culture she always ends by finding herself. She adopts all foreign elements but turns them around, reshapes them, and finds in them that something which is peculiarly her own.

II

Now for the question of dating.

The testimony of the elder Pliny (*Nat. Hist.* 33, 44) used to be a criterion for differentiating 'Romano-Campanian' silver coinage from Roman city coinage, for identifying this city coinage with the denarius, and for setting the date of the latter at 269 B.C. Indeed, the denarius there seems to be referred to as the oldest Roman silver coin.

Since then Mattingly[1] has made the significant discovery that in the years 215–211 B.C. the Carthaginians and the Campanian rebels restruck coins not of the sextantal standard but of the semi-libral.

Since we know that there is the closest connexion in time between the denarius and the sextantal as,[2] this discovery means that the denarius could not have existed at this time. From this we draw the further conclusion that, if the year 269 does not refer to the appearance of the denarius, then it most probably refers to the first, the very first appearance of silver coinage at all, which means that this reference of Pliny's must have been to the oldest 'Romano-Campanian' series.

If we then reread Pliny's chapter in question—bearing this in mind—much will appear in a new light. The decisive sentence runs: 'argentum signatum anno urbis CCCCLXXXV, Q. Ogulnio C. Fabio coss., quinque annis ante primum Punicum bellum.' There has never been any doubt as to the value of Pliny's information.[3] But to what silver does it refer? The assertion that Servius Tullius was the first to coin copper is, in spite of the citation of Timaeus, incorrect. It is likewise incorrect that the first Roman census-class was estimated at 120,000 heavy asses. The figure is irregular,[4] and

[1] Mattingly–Robinson, *Roman Denarius*, p. 3 f.; compare *Journ. Rom. Stud.* 1929, p. 28.

[2] Samwer–Bahrfeldt, *Geschichte des älteren röm. Münzwesens*, p. 66 f.; Mattingly–Robinson, *Roman Denarius*, p. 4, note 1, p. 9.

[3] F. Münzer, *Röm. Adelsparteien*, p. 88; Mattingly–Robinson, *Roman Denarius*, p. 26.

[4] Th. Mommsen, *Röm. Staatsrecht*, iii. 250.

moreover we know that this reckoning was based on the sextantal, not on the libral asses.[1]

It is much the same with Pliny's following sentence in which stands the astonishing assertion that originally ten heavy asses were worth one denarius—a statement which, so far as I know, no one has taken seriously.[2]

But the previously quoted sentence is remarkable in another sense. There, Pliny had a threefold basis for his dating: the year of the city's foundation, the list of consuls, and the length of the time before the major event of the First Punic War. Nowhere else in the chapter are the bases of his chronology so exactly formulated. When, at the beginning of the chapter, he assumes that silver coinage came in with the defeat of Pyrrhus, that is not an indication that the year 269 is meant. Indeed, if a different year is taken to date from—not the beginning of the Punic but the end of the Pyrrhic War[3]—the historical picture before us is completely changed.

In other words, the sentence in question stands completely isolated. It impresses one as a note inserted long afterwards in the frame of thoughts and facts as they appear to-day in Pliny's chapter. We may guess at its origin. The exact formulation of the date suggests the Annalists. And that this is indeed so would seem to be shown by the epitome of Book XV of Livy.

There we read: 'tunc primum populus Romanus argento uti coepit.' With *tunc* Livy refers not to the events of 269 but to those of 268.[4] Here a difference between Pliny's and Livy's information is apparent, but we are not in a position to say whether Livy himself or his epitomizer is responsible for it. Be that as it may, it is clear that both sentences, if we take them out of the context, refer not to the striking of the denarius but, in general, to the striking of silver.[5]

And it is this which we should bear in mind. It was not the denarius which was struck in 269, nor was it a coin of the city of Rome which was struck to replace a coin of outside manufacture. Rather it was above all the year in which the first silver money appeared. And by this, according to our knowledge, can only be meant the first 'Romano-Campanian' series.[6]

This is something for which we find confirmation in another sphere; for alongside of our philological testimony we have the evidence offered by the history of art.

[1] Th. Mommsen, l.c. iii. 249, n. 3.
[2] Compare T. Frank, *An Economic Survey of Ancient Rome*, i. 46, n. 8.
[3] Compare F. Altheim, *Welt als Geschichte*, ii. 90 f.
[4] H. Mattingly, *Journ. Rom. Stud.* 1929, p. 27, n. 2.
[5] H. Mattingly, l.c., p. 27.
[6] P. Le Gentilhomme, l.c., p. 19.

On the reverse of the series of one of the oldest Romano-Campanian issues appears the she-wolf giving suck to the twins. It is well known whence this representation comes: from the bronze statue which stands at the Ficus Ruminalis (Livy, x. 23. 11 f.). The chronicle relates that the curule aediles of the year 296 'simulacra infantium conditorum urbis sub uberibus lupae posuerunt'.

The actual succession from statue to coin has, up to the present time, not yet been sufficiently considered. F. v. Duhn states, for instance, that the coin, also, belongs in the beginning of the third century.[1] But when v. Duhn wrote his lines it was generally assumed that the oldest silver coinage began immediately after the alliance of Naples with Rome, that is, in the third decade of the fourth century. And thus one was confronted with the astonishing fact that the design on the coin was some thirty years older than the monument at the Ficus Ruminalis.

Here Mattingly's late dating of the oldest series first created a clear and coherent picture. If one puts this series, as he does, in the year 269, then the reverse of the oldest nummus really has a bearing on the statue which was already standing at that time. The relationship is apparent in the significance which the legend of the she-wolf and the twins had for Rome; and, beyond this, there are particular and even personal connexions to be found.

It is remarkable enough that the means for the erection of the bronze she-wolf came from the fines which the aediles inflicted upon convicted usurers. Here we have a financial and commercial measure in which a connexion with the introduction of silver coinage is apparent. And it is also apparent that this introduction must likewise have been considered as such a measure. Apart from that, there is much significance in the personality of the two curule aediles, the brothers[2] C. and Q. Ogulnius. The latter is none other than the consul for the year 269, and thus the high official under whom silver coin was struck for the first time.

Now it is clear that when the consul Q. Ogulnius had the she-wolf and the founders of the city put on the reverse of his silver money he very definitely meant to call attention to his own and his brother's curule aedileship and, in particular, to their common achievement, the erection of the monument at the Ficus Ruminalis. Mattingly's late dating could hardly have found a more brilliant confirmation.[3]

[1] *Gnomon*, ii. 218; L. Curtius (*Röm. Mitt.* 1933, p. 204 f.) has seen the problem and tried to date the didrachm in the years after 296, still without knowing the last publications of Mattingly.

[2] F. Münzer, l.c., p. 86.

[3] Thereby E. Löwy's attempt (*Stud. etruschi*, viii. 80 f.) to prove a coin of Cydonia to be the model, falls to the ground. The artist had certainly meant the statue of the Ogulnii.

There is still one question to be answered.

According to Livy's story, the two Ogulnii used the usurers' fines to commission not only the statue of the she-wolf but a whole series of monuments and to carry out other public improvements as well. Among these was the group showing Jupiter in his quadriga, which was intended as a ridge-pole decoration for the Capitoline Temple. One recalls at once that the latest of the so-called 'Romano-Campanian' series bears this same picture—the god of heaven driving four horses abreast—on its reverse. In this case, too, one may assume that the design on the coin was not chosen by chance but rather that there was a close connexion between it and the monument which the Ogulnii, in their capacity as aediles, had erected.

However, one cannot be absolutely certain of this assumption. Just when the latest series was minted still remains to be investigated. If Mattingly's latest guess—that the quadrigatus followed Rome's treaty with Hiero of Syracuse in 263—is correct,[1] then there is at least the possibility of a renewed connexion with Q. Ogulnius. For it is only with his nomination as *dictator Latinarum feriarum caussa* in 257[2] that he disappears from view.[3]

At any rate, our result is significant enough. And it is the personality of this very Q. Ogulnius that we encounter again when we attempt to fit the one detail of silver coinage into the pattern of the development of Graeco-Roman relations.

As U. Wilcken,[4] in speaking of the later effect of the influence of Alexander the Great on the West, has indicated, the introduction of silver coinage in 269 had a direct bearing on another matter of decisive importance:—the first performance of a Greek drama, an event which took place in 240. We remember that efforts had been made to establish a connexion not only with the Greek commercial world but also with Greek literary and cultural life. The connexion is there and is much closer and much more remarkable than one might at first suppose.

In the older historical interpretation—to which, until recently, Berve's school still clung[5]—the year 327 was regarded as one of

[1] P. Le Gentilhomme, l.c., p. 22, saw rightly: 'Le quadrigat constitue la transition entre les premiers didrachmes de style et de type purement helléniques . . . et le denier romain classique, créé vers 187 avant J.-C.' He would like to accept 235 as a more exact date for the closing of the Janus temple. However, the god functioned here as an *index pacis bellique* (G. Wissowa, *Religion und Kultus der Römer*[2], p. 104) and not as a 'fidèle gardien des traités' as P. Le Gentilhomme sees him. Thus a contractual settlement like that of 263 would fit in very much better with what he himself affirms.

[2] *C.I.L.* i. 1[2], p. 24.

[3] F. Münzer, l.c., p. 84 f.

[4] Alexander der Grosse, p. 292.

[5] See F. Altheim, *Welt als Geschichte*, pp. 2, 86 f., and the literature there referred to.

decisive change in the relationship between Greece and Rome. For it was then that Naples joined the league of Roman states and thereby, it was supposed, brought the leading central Italian state into its first contact with the all-embracing sphere of Greece, a land which was to exercise an enduring influence on Roman culture and on the whole of Roman intellectual and public life. The year 327 was thought to have marked the modest beginning of what was to be the triumphal procession of Greek culture through every phase of Roman life.

In accordance with this interpretation, Roman silver coinage was assumed to have had its beginning in that year. The striking of silver coin was regarded as the concrete expression of a close connexion with the Greek world—and the years immediately after the placing of it in 327 simply made the political and economical developments of the time appear to supplement each other in the most satisfactory way.

Mattingly's late dating of the 'Romano-Campanian' series dealt this interpretation a very heavy blow.[1] The annexation of Naples has no bearing at all on the appearance of Roman silver money, which occurs not with Rome's establishment in Campania but rather with her conquest of all Italy. Beyond that, it is extremely questionable whether Naples was in a position to represent Greece in the measure assumed.[2] The penetration of a strong Oscan element into the city—a fact which was just as apparent in the names of the Demarchic List (Strabo, v, p. 246) as in our other onomastic material—and the decline of the Graeco-Campanian coinage[3] which lasted till the turn of the century—would rather seem to speak for the opposite.

It is a different interpretation of Romano-Italian history which now assumes significant form, an interpretation which appeared with Mattingly's first investigations and which, surely not haphazardly, the later results of his work have neatly supplemented and confirmed.

To-day it may be admitted freely that Greek influence was not a late phenomenon in Rome and that its first appearance there was not in the last third of the fourth century. Rather, shortly after 600 and then again at the beginning of the fifth century, Greek gods, Greek sculpture and architecture, and finally certain Greek military and legal forms took their place as highly influential factors in the Roman and central Italian world.

The very spheres that were first to feel the penetration of Greek

[1] F. Altheim, l.c., p. 90.
[2] F. Altheim, l.c., p. 88.
[3] P. G. Goidànich, l.c., pp. 73, 75 f.

influence were likewise susceptible to the change that took place with the beginning of the Gallic invasion.[1] The worship of Greek gods, the dedication of temples to them, and, above all, the very acceptance of such gods in the ritual of the Roman state came to an abrupt end in the third decade of the fourth century. There was an analogous phenomenon in sculpture and bas-relief and, above all, in painting.[2] Though archaic fresco painting shows an uninterrupted line of achievements, the lively current of Greek art suddenly dries up at the end of the fifth century and there is a persistence in late archaic forms, carried beyond their natural limits of time, to become a meaningless outworn form for more than a century.

It is scarcely necessary to carry the analogy over into politics where the story of Alexander of Epirus may give us a hint.[3] Let it suffice to say that Rome and all central Italy were separated from the Greek world for more than a hundred years—till the beginning of the third century. The new change was marked politically by the collision first with Tarentum and then with Pyrrhus and intellectually by the penetration of Hellenism.[4]

Here we again encounter Q. Ogulnius, one of those exceptional men who were largely responsible for the introduction of the Greek spirit into the religious, literary, and artistic life of Rome.[5]

Münzer, whom we have to thank for the picture of this man, has already said everything that is of fundamental importance about him. Ogulnius's position in the history of Roman state religion is indicated by the law which bears his name, a law which provided for the doubling of the pontifical and augural bodies and which left the newly created posts open solely to plebeians (Livy x. 6, 3 f.). Towards the end of his life Ogulnius appears as the dictator who directed the *feriae Latinae* and thus on the Alban hill honoured that same god for whom, forty years before, he had decorated the Capitoline Temple with a bronze acroterion and other dedicatory gifts (Livy, x. 23, 12).

He was of great assistance in the renewed introduction of the

[1] F. Altheim, *Epochen d. röm. Geschichte*, p. 158 f.; *Röm. Religionsgesch.* ii. 95 f.; iii. 11, n. 1; *Welt als Geschichte*, ii. 88 f. Cf. M. P. Nilsson, *Einltg. i. d. Altertumswiss.* ii[4]. 4, 101; *Dte. Lit.-Ztg.* 1935, p. 491; G. Pasquali, *Preistoria della poesia Romana*, p. 61 f.

[2] F. Messerschmidt, *Röm. Mitt.* xliii. 156 f.; *Arch. Jahrb.* xlv. 62 f.; F. de Ruyt Charun (Études Inst. Hist. Belge de Rome, 1), p. 182; D. Levi, *NDCS.* 1933, p. 43 f.; O. Brendel, *Arch. Anz.* 1933, p. 581.

[3] W. Hoffmann, 'Rom und die griech. Welt im 4. Jahrh.', *Philol. Suppl* xxvii. 1, 20 f.; F. Altheim, *Welt als Geschichte*, ii. 86 f.

[4] F. Altheim, *Römische Religionsgesch.* ii. 109 f.; *Epochen d. röm. Geschichte*, 210 f., 230 f.; *Welt als Geschichte*, ii. 90 f.

[5] l.c., pp. 83 f., 88.

Greek divinities. It was in 292,[1] after a break of more than a hundred years, that such a deity, the Epidaurian Asklepios, could first be installed in accordance with the command implicit in the Sibylline books. Here we see Ogulnius at the head of the deputation which went out to welcome the new divinity. It is probable that he had been before a member of the staff of the *decemviri*,[2] who had to exercise protecting care over the Sibylline oracles, a fact which implies a remarkable intimacy with and knowledge of the Greek spirit. Thus, it cannot have been by chance that this same man, together with Q. Fabius Gurges and N. Fabius Pictor, was sent as ambassador to the court of Ptolemy in 273 (Val. Max. iv. 3. 9; Dion. Hal. xx. 14).

Here, as everywhere else, Q. Ogulnius appears to have enjoyed a close connexion with the Fabian house, which Münzer has described in detail.[3] And it is significant that Q. Fabius Gurges was one of the successors of the Ogulnians in the curule aedileship. As has already been observed, he imitated his predecessors in that he applied moneys derived from fines to religious purposes. In 295, with money from this source, he began the construction of the Temple of Venus on the Circus Maximus.[4] This building, as has been also correctly noted, is the oldest temple of Venus of which we know in the city itself.[5] That the name of Venus did not occur in the oldest sacral documents has long been clear to Roman antiquaries,[6] and till Ogulnius's time the cult was limited to Lavinium and Ardea which were under Ardeatic supervision and where Boethius's excavations have restored to us not only the temple itself[7] but also the complex which surrounded it.[8] According to him, Q. Fabius Gurges made the access of Venus to Roman city soil possible for the first time just as Q. Ogulnius had paved the way for Asklepios. And it is of the greatest significance that, as I believe, Venus here and everywhere else was none other than Aphrodite. I hope to present the proof for this in another connexion. For the time being it will suffice that her character as 'garden goddess'[9] is by no means an objection to the identity with Aphrodite. For it was she who was the goddess ἐν

[1] F. Münzer, l.c., p. 84, n. 1; compare G. Wissowa, *Religion u. Kultus d. Römer*[2], p. 307.

[2] F. Münzer, l.c. p. 87.

[3] F. Münzer, l.c., p. 85 f.

[4] Livy, x. 31. 9; Fast. Vallens. 19. aug.: *C.I.L.* i. 1[2], pp. 240, 325 f.

[5] G. Wissowa, l.c., p. 289; U. v. Wilamowitz, *Der Glaube der Hellen.* ii. 337.

[6] G. Wissowa, l.c., p. 228.

[7] *Boll. stud. medit.* ii. 6. 21 f.; iii. 3. 1 f.; *Apophoreta Gotoburgensia Vilelmo Lundström oblata*, p. 352 f.

[8] *Boll. stud. medit.* iii. 3. 1 f.; v. 1–2. 7 f.; *Apophoreta*, p. 353 f.

[9] G. Wissowa, l.c., p. 289.

κήποις,[1] the *Ἀνθεία*, who is represented in Lucretius's proemium as ruling the growing and blossoming of Nature.

Further, it was probably the brother[2] of the other ambassador of 273, of N. Fabius Pictor, who in the decisive year 269 assumed the consulate with Ogulnius. Once more it was members of these closely connected houses who introduced silver coinage on the Greek model and opened the door to commercial relations with the Greek East. And the oldest didrachms themselves (as Mattingly has shown me) mirrored this connexion. For the very series on the reverse of which are the she-wolf and the twins carries on its obverse the portrait of Hercules. He it was who fathered the Fabian line; and the mythical maternal ancestor of the Fabians has been re-identified in his beloved Faula or *Φαβόλα* (Plut., *quaest. Rom.* 35).[3]

It may be added that the father of the two Fabii Pictores mentioned was given his surname because he had decorated the temple of Salus on the Quirinal (dedicated in 302)[4] with frescoes.[5] And although this deity was at that time not yet identified with the Greek Hygieia,[6] one may none the less see in the frescoes traces of Hellenistic infiltration. For the art of the noble Roman painter, not only in point of time but also in point of style, cannot have been very far removed from that of the monumental frescoes of the Tomba François in Vulci.[7]

That the Ogulnii as patrons of art were almost Hellenistic in taste and feeling for style is to be seen in a further detail. On the reverse of the first Roman didrachm we encounter the she-wolf with the twins, as we have seen: the copy of the Ogulnian monument at the Ficus Ruminalis. We know from the representations of the minor arts[8] what it looked like. If one compares it with its predecessor the archaic bronze she-wolf on the Capitol, one may quickly see that 'the sentimental emphasis of motherhood, the tender turn of the head to the sucklings and finally the loving caressing lick' is something which is no longer archaic but already Hellenistic.[9]

Therein, too, we may see the connexions which we have to draw upon for the introduction of the silver money.

[1] W. F. Otto, *Die Götter Griechenlands*, p. 120 f.
[2] F. Münzer, l.c., pp. 67, 86.
[3] W. F. Otto, *Rhein. Mus.* lxiv. 449 f.; G. Wissowa, l.c., p. 216, n. 3.
[4] G. Wissowa, l.c., p. 132.
[5] F. Münzer, l.c., p. 88; *R.E.* vi. 1835 f.
[6] G. Wissowa, l.c., p. 137.
[7] F. Messerschmidt, *Nekropolen von Vulci*, pp. 110 f., 160 f., Taf. 3 f.
[8] J. Carcopino, *La Louve du Capitole*, p. 46 f.; E. Löwy, *Studi etruschi*, viii. 77 f.; L. Curtius, *Röm. Mitt.* xlviii. 196 f.; J. B. Carter, *Mythol. Lexikon*, iv. 202 f.; *NDSC.* 1934, tav. xv (Arezzo); *Arch. Anz.* 1935, p. 529.
[9] F. v. Duhn, l.c., p. 138.

It has already been observed that where Rome takes over Greek culture—and therewith a foreign form—she finds and expresses something which is peculiarly her own. Thus, the assimilated Hellenism of the first half of the third century bears a characteristically Roman stamp. In this assimilation a noble coterie plays the decisive role. How such coteries, in rivalry and union, in competition and imitation, can none the less guide the course of political events and, in spite of all contradiction, pull together on common lines, can be seen here where the Fabian and Ogulnian houses vied with one another in the encouragement and patronage of Hellenism.

On the other hand, it is apparent in what measure Greek culture itself gained in influence and power. Its rise was implicit in the destiny which lay over Rome and which none of her leading men could overlook or avoid. Mattingly's late dating of the first silver coinage has made it possible for us to visualize the silver issue as an integral part of an historical phase with which, in my judgement, it harmonizes.

A GOLD MEDALLION OF MAXIMINUS DAIA

JEAN BABELON

LACTANTIUS, in the little-flattering portrait he has left us of the persecutor of the Christians, Maximinus Daia, describes this ruler as a prodigal spender whose vulgar policy inclined him to squander gifts on his entourage in order to secure clients for himself. 'He spent indifferently and without measure, heaping upon his satellites, whose number was immense, rich robes and gold coins, distributing money to simple soldiers and young recruits and bestowing munificence on the barbarians.'[1]

However, the large gold medallions (*pièces de plaisir* as they were called formerly in France), destined for distribution among officers or courtiers of merit, of which a great number has come down to us from the preceding emperors, notably Gallienus, Aurelian, Probus, Diocletian, Maximinian Hercules, and Constantius Chlorus, are very rare during the reign of Maximinus Daia. In fact, we know of only two: one at Vienna[2] and the other recently presented to the Cabinet des Médailles of France by M. Carlos de Beistegui,[3] whose generosity is well known.

The following is the description of the latter medallion.

Obv. GAL VAL MAXIMINVS NOB CAES. Bust to the right, with laurel wreath, bearded, dressed in a paludamentum fastened at the neck; circle of dots.

Rev. SOLE INVICTO. The Sun standing upright to the left, head encircled with a radiated crown, clad in a tunic (stola) with long sleeves,

[1] *De mortibus persecutorum*, 37, 5.

[2] Gnecchi, *I medaglioni romani*, t. i, pl. 6, n. 5.

[3] *La Collection de monnaies et de médailles de M. Carlos de Beistegui*, n. 231. See the preface by Jean Babelon. This catalogue has not been published.

falling to the feet, a belt round the waist, a chlamys fastened on the right shoulder and falling over the left arm. The right hand is open and stretched out in a gesture of prayer or greeting; on the left there is a small bust of a bearded Serapis, with long hair, and wearing a *modius*. Ex. ALE. Circle of dots.

Æ. 30 mm. 21·28 gr.

I shall call to mind some data which will make it possible to date this exceptional piece. The interest it presents is due to a great extent to the testimony it gives of the last battle of paganism with Christianity which was then about to triumph officially. On the 1st of May 305 Diocletian abdicates at Milan. Constantius Chlorus and Galerius then assume the title of Augustus; Severus and Maximinus Daia that of Caesar. Daia, hardly more than a boy, receives as his share the diocese of Asia, to the south of the range of the Taurus, Syria, and Egypt, with the mints of Antioch and Alexandria.

From the very beginning the young Caesar shows a decidedly hostile attitude to the Christians. Persecutions take place in the East during the entire year 307. In 308 Constantine, who was proclaimed Augustus at the death of his father Constantius Chlorus (306), and still a pagan, declares himself the protector of the Christians, but the persecutions continue in all Daia's provinces. About the end of the year Daia negotiates with Galerius who, refusing to bestow on him the title of Augustus, which he covets, nominates him *Filius Augustorum*, a purely honorific designation, which Daia declines, attributing it scornfully to Constantine. In the month of April or May 309 Daia informs Galerius that he has been proclaimed Augustus by his troops, and Galerius is obliged to give in. In order not to appear to submit to the will of a subaltern in revolt he bestows the same imperial rank upon Constantine.

The legend on our medallion shows clearly that the coin was struck before this declaration, Maximinus Daia bearing only the title of *Nobilissimus Caesar*. The place of issue, the mint of Alexandria, belonged to Daia from the foundation of the second tetrarchy (1 May 305) till June 313, when, forced by Licinius, he committed suicide at Tarsus.

The portrait of Maximinus Daia which we see here therefore dates from a time when the Emperor was quite young, at the beginning of his reign. If we compare it with that on the gold coins collected by M. Jules Maurice,[1] we not only notice the rare quality of the engraving and the modelling, but the striking portrait-like

[1] Jules Maurice, *Numismatique constantinienne*, i, p. 65 ss.; iii, p. ix ff., and for the mint of Alexandria, p. 219.

quality; as we know, on this point coins are often documents of uncertain or deceptive value. The portrait of the preceding emperor sometimes supplants that of the master of the moment, at the beginning of his reign, because the old dies are made to serve in new circumstances. In the present case we most certainly have before us Maximinus Daia's own face, and we may notice the characteristic features which in other places deteriorate into caricature: a long, straight nose, drooping moustache, low clear-cut forehead, beard following the line of the jaw, large staring eye. The only sculpture which can be compared with this minted effigy is the porphyry bust in the museum of Cairo, the date of which may be fixed between 305 and 308 and which, consequently, is exactly contemporary.[1]

The origin of Maximinus Daia is well known. Son of a sister of Galerius, he was born in Illyria, in a family of cattleherds, and Lactantius[2] does not fail to draw an oratorical effect from this lowly extraction: 'Daia, still recently among his herds and his forests, first *scutarius*, then *protector*, soon after *tribunus*, and finally Caesar, received the East as matter to crush out and stamp down, he who was ignorant of military art or the art of government, a real herdsman, not of sheep, but of soldiers.'

The writer here allows himself to be carried away by his passion. Without intending to whitewash Daia, it seems more just to listen to the judgement expressed in our day by M. Piganiol:[3] 'This disparaged ruler seems to have been a worthy successor of Diocletian, the real model of Julian. The philosophers of the Museum were his spiritual helpers. . . .' The fact of the matter is that this persecutor was not an impassioned brute, an ignorant, cruel herdsman; his fanaticism was rooted in reason: at the very moment when Christianity was on the point of victory he dreamt of reviving paganism. He did not possess the science, philosophic knowledge, or the talents which Julian the Apostate showed later, but he had the same obstinacy and the same relentless conviction. That in our eyes gives him a certain grandeur, and he does not seem to deserve all the scorn which Lactantius heaps upon him. The type of the Beistegui medallion is the symbol of the religious battle undertaken by the Emperor in Asia and Egypt.

The first hostilities take place already in the early days of his reign. Daia's first rescript concerning the persecution of Christians is promulgated in 305, ordering all the Emperor's subjects to celebrate the

[1] Peirce and Tyler, *Byzantine Art*, London, 1926, pl. 2 and 3.
[2] *De mortibus persecutorum*, 19.
[3] A. Piganiol, *L'Empereur Constantin*, p. 54.

pagan sacrifices under the control of official functionaries. Law-breakers were persecuted in the East all through the year 307. In 308 a new rescript was published by which sentences of capital punishment were changed to mutilations and deportations to the mines. In the same year an edict ordered the broken images of the gods to be raised again, and made it obligatory to be present at sacrifices and the ensuing sacrificial repasts, and directed that all goods exposed for sale in the markets should be sprinkled with lustral water. Moreover, those who participated in public baths must join in the sacrifices. The *praefectus praetorii*, governors of provinces, curators of cities were charged with the execution of these measures.

But Daia's persecutions were not only of a negative character. His aim was not only to abolish a superstition but to re-establish a cult. Daia conceived the plan of nominating for the ancient rites a clergy with a hierarchy like that of the Christians, and he used for that the administrative framework which already existed in Egypt. His predecessors had deprived the Prefect of Egypt of his religious qualifications and had transferred to an officer named *Idiologus* the administration of priests and temples. Under Antoninus Pius the religious powers had been centred in the *'Αρχιερεὺς 'Αλεξανδρίας καὶ Αἰγυπτίου πάσης*. Daia took the place of the High Priest in order to exercise at the same time religious and temporal authority. Moreover, he used various propaganda, sometimes clever, in favour of paganism. In a letter to the people of Tyre he speaks to them of their city, the seat and residence of the immortal gods, whose presence and protection are proved by significant miracles.[1] He issued entirely forged 'Acts of Pilatus' full of blasphemies against Christ. 'The officials', says M. de Labriolle,[2] 'sent it by the ruler's order to every place in their jurisdiction and by posters recommended that the contents be brought to the knowledge of all, that the teachers let the children use it as school-books instead of the ordinary books, and that it be learned by heart.' Official falsehoods, sometimes from the lowest sources, were systematically spread against men who were least of all impious, but rather unhappy; these men were pointed out to public vindictiveness as responsible for all the calamities.

On the contrary Galerius, Daia's uncle, showed a conciliatory attitude to the Christians. On the 5th of May 311 he issued in his provinces an Edict of Tolerance. After Galerius's death Daia decided to adopt an entirely opposite policy and called forth a sort of petition or referen-

[1] Eusebius, *Hist. Eccl.* ix. 4 et 7.

[2] P. de Labriolle, *La Réaction païenne. Études sur la polémique anti-chrétienne, du Ier au VIe siècle.* Chartres, 1934, p. 327.

dum from the cities of Asia and Syria, which resulted in a general decree against the folly of the Christians.

The constructive elements of the campaign for paganism centred around the cult of the Sun and Serapis. This will be borne out when we consult the coins.

The offices of the Administration of Finances which chose the coin-types had been carefully purged by the Emperor, so that his own personal idea is expressed in the choice. From 308 till 311 the coins struck at Antioch bear the image of sacrificial altars, which are symbols of cults, which, if not restored, are at least officially ordered to be worshipped. The coins issued at Antioch and Nicomedia after the death of Galerius, in 311, show the importance that Daia attributed to the Egyptian cults and to the worship of the Sun.

The Beistegui medallion proves that this weapon of war had been used by Daia several years beforehand. The divinity which he had decided to set up against Christ and make the patron of his religious reform was the Sun-God, the last incarnation of paganism, not independently, however, but introducing, or aiding, Serapis.

We shall not repeat the story of the old Chthonic god from the Black Sea and Thrace, whose cult flourished at Sinope, and whose image, according to the legend, was transported to Alexandria to be venerated under the name of Serapis.[1] Under Ptolemy I the infernal god of the Egyptian pantheon, Osiris-Apis of Memphis, was the object of a Hellenic cult, well received by the Greeks, who saw in him Hades. His name passed into the Greek language as Sarapis or Serapis, and the new religion spread quickly in the early days of the Roman Empire.[2]

The oldest representations we have of Serapis on coins date from Ptolemy IV Philopator. The Egyptian types were introduced at Alexandria in the imperial mint from the ninth year of Nero's reign. Serapis figures on silver coins together with the Nile. Already under Nero, Serapis, in conjunction with Zeus, is the protector of the Emperor and his saviour at the time of Piso's conspiracy, in 64–5. Vespasian venerates Zeus-Serapis; Domitian Helios-Serapis.[3] Under Trajan, Serapis is the protector of the Roman armies; under Hadrian he unites in one person: Zeus, Ammon, Poseidon, the Nile, Asclepios, Helios. That represents the last phase in the Alexandrian religion. On a coin of the year A.D. 117

[1] Herodian, iv. 8, 7.

[2] Wissowa, *Religion und Kultus der Römer*, 1912, 351–9.

[3] Salomon Reinach, *Rép. de la statuaire gr. et rom.* ii. 1, p. 19, fig. 1. Helio-serapis seated on a throne.

Hadrian is seen standing in the temple of Serapis, with his right hand on a stele, greeted by the god who comes towards him. Commodus ranks Serapis with the protectors of the Emperor and of the Empire. Caracalla takes the name of *Φιλοσάραπις*, spreads the cult in the whole Empire, and erects a temple to Serapis on the Quirinal in Rome. In 212, in execution of an edict by the Emperor, the type of Serapis appears independently on Roman coins. A coin of Gallienus shows him standing near a fountain; this to commemorate the success of a military campaign.

But quite early the god of Memphis is associated with other divinities of the old Roman stock, which he adopts, or which adopt him. Examples to this effect are found during the reigns of Claudius and of Trajan, where Serapis is associated with Heracles, Hermes, or the Dioscuri. Dating from the time of Antoninus this syncretism is expressed in composite, pantheistic busts, which show the attributes of Zeus, Serapis, Helios, Ammon, Asclepios, Heracles, and the Nile. Serapis appears again accompanied by various animals: riding a ram; or the bust is placed on the head of a ram. Under the reign of Hadrian we see a serpent with a Serapis-head. During Antoninus's last years the type of a Serapis-bust placed on a human foot is frequent. This symbol shows the god as the protector of travellers. On a lamp in the form of a boat, discovered at Puteoli, Serapis, Isis, a Dioscurus, and Helios are seen together. A papyrus from the fourth century in the British Museum identifies Zeus, the Sun, not only with Serapis, but also with the old Indo-Iranian god Mithra, who, under Chaldean influence, came to be considered as the Sun. One of the mystic formulas begins thus: 'I invoke Thee, O Zeus, the Sun, Mithra, Serapis. . . .'

A marble head, now in the museum at Algiers, but found at Carthage, in 1874, in the ruins of the Serapeum, represents a young man without a beard, with flowing hair, and wearing the modius as a head-dress. M. Audollent recognized in this a hybrid divinity, Helioserapis. M. Perdrizet[1] raises an objection to this interpretation, for the reason that Serapis is never represented without a beard, nor is Apollo represented wearing a modius. Yet in the Cabinet des Médailles there is an intaglio from the Roman period on red jasper (no. 1477, gift of W. H. Waddington, 1853) showing a bust of Apollo without a beard, radiated, and wearing the modius of Serapis. It is hard to fail to see in that the very expression of the syncretism of which the Beistegui medallion shows another version.

Serapis is the principal figure of a solar myth. He attests the

[1] *Rev. archéologique*, 1903, pp. 394 ff.

birth, the climax, decline, and death of the Day Star. He is therefore both the God of Light and of Darkness. His statue in Alexandria was carved in wood and painted a dark blue colour, apt to create melancholy or fear, but at the same time his head, aureoled with rays, incarnates the triumph of light once more victorious. If sun-rays fell through the window of the sanctuary and touched the face of the god, the believers took it to be the material realization of the mystery: Helios kissing Serapis. A coin of the reign of Marcus Aurelius represents this mystical scene.[1]

The legend *Ἥλιος Σάραπις* appears for the first time on the coins in A.D. 94 (*B.M.C. Alexandria*, no. 284) accompanying the busts of the young radiate Helios and Serapis, sometimes kissing each other. In the dedications in temples the expression *Διὶ Ἡλίῳ Μεγάλῳ Σαράπιδι* is found. Vespasian designated the god of Alexandria by the name Zeus Serapis, but Domitian called him Helios-Serapis.

To the protection of Isis-Pharia, Serapis, or to the Dioscuria the shipping of corn from Egypt to Rome was recommended; under the Antonines Serapis appears on the coins between the Dioscuria. A gold coin struck during Hadrian's voyage to Alexandria, in 130, shows the Emperor and the Empress Sabina clasping hands with Serapis and Isis. Helios is often met with, for instance, on a coin of Otacilia struck at Nicomedia,[2] on an Alexandrian coin from the reign of Maximinus,[3] &c. Added to Serapis's many pantheistic attributions was that of Divine Healer, which tended to increase further the number of his worshippers. It will be remembered that the *Octavius* by Minucius Felix, a dialogue composed for the defence of Christianity, presents three persons who talk while walking in the port of Ostia, and as one of them makes a gesture of adoration in passing in front of the statue of Serapis, the discussion is set going.

Early in the second century Hadrian wrote to Consul Servianus that at Alexandria only one god was now recognized, namely, Serapis, and that pagans, Christians, and Jew alike united in rendering homage to him. Similarly Aelius Aristides states that the Alexandrians proclaimed Serapis the only Zeus and invoked no other god than him.[4]

This Eastern current joined the monotheistic tendency of paganism, the last avatar of which was Sun-Worship in conjunction with the

[1] Lafaye, *Dict. des Antiquités*, v° Serapis; Cumont, ibid., v° Sol.

[2] Ernest Babelon et Théodore Reinach, *Recueil général des monnaies grecques d'Asie-Mineure*, Nicomédie, i. 3, p. 506, n. 378.

[3] Dattari, *Nummi augg. alexandrini*, n. 5983, p. xxiv.

[4] Lafaye, *Les Divinités d'Alexandrie hors de l'Égypte*, Paris, 1884, p. 88. Cf. Chapoutier, *Les Dioscures au service d'une déesse*, Paris, 1935, p. 305.

cult of the Emperor's person. This last evolution of the Roman religion was caused by the development of oriental theologies and of astronomic theories. In 218 Elagabalus wants to make the Baal of Emesa the principal god of the Roman Pantheon. In 274 Aurelian, in order to celebrate his victory over Zenobia, erects at Rome on the field of Mars a gorgeous temple in honour of the *Sol Invictus*, served by priests who rank even higher than the ancient *collegium pontificum*. The epithet *invictus*, in Greek ἀνίκητος, 'for ever victorious', is currently applied in the East to the sidereal powers, the Syrian Baals, Mithra, Sabazios.[1] It consecrates the periodical and certain return of the celestial light which triumphs over darkness. The *natalis invicti*, 25 December, was celebrated every year with circus games, it being the birthday of the Star-King.

From the reign of Septimius Severus the Sun-God appears on the imperial coins with the qualifying title of *Oriens* or *Aeternitas Augusti*. For Gallienus, the legends of *Sol invictus*, *conservator* or *restitutor orbis* or *dominus imperii Romani* are found, and the sun is represented as a young man wearing a radiate crown, dressed in a chlamys, with the right hand raised and in the left holding a whip or a globe. We recall on this subject Macrobius's dissertation (*Sat.* i. 17) which tends to prove that Apollo, Mars, Aesculapius, Hercules, Serapis, Adonis, Attis, and Osiris are simply different names for a single deity: the Sun.

No doubt the legend on the famous medallion of London, of the time of Constantius Chlorus,[2] alludes to this cult, and the bust of the Sun still accompanies that of the emperor on the medallion which commemorates the arrival of Constantinus and Licinius at Milan in 313.[3]

As to the plastic form which this ideology assumes on the coins and medallions of Maximinus Daia struck in the different mints of his territory: at Nicomedia, Cyzicus, Antioch, Alexandria, it shows a man holding a bust in his outstretched hand. Already under Marcus Aurelius the city of Alexandria itself was represented thus holding the bust of Serapis and some ears of corn.

During the reign of Daia analogous, though different, types express the same idea. Sometimes it is the genius of the emperor holding Serapis's head wearing the modius, or the head of Helios, or of the *Sol invictus*, sometimes it is the Sun itself, no longer nude with the

[1] Usener, *Sol invictus*, in *Rhein. Mus. f. Philol.*, N.F. lx, p. 470, cf. Alföldi, *Insignien und Tracht der römischen Kaiser*, Berlin, 1935, pp. 84 ff. and 90 ff.

[2] Jean Babelon, *Médaillons d'or du Trésor d'Arras*, *Aréthuse*, 1924.

[3] Ernest Babelon, *Mélanges numismatiques*, t. iv, pp. 128–37.

chlamys thrown back over the shoulder, but draped in a long gown as Apollo citharoedus.

It is interesting to notice that this naked genius,[1] wearing the *calathos* on its head, appears on the frescoes in which M. du Mesnil du Buisson has recognized the temple of the Sun, in the synagogue of Dura (it will be recalled that the town of Dura-Europos on the Euphrates was destroyed by the Persians in the middle of the third century A.D.) in the form of a third person of a trinity of whom the two first are Hadad and Atargatis; this son of god is the Sun. As to the *calathos* or *modius*, M. Cumont interprets it as follows (*Doura*, p. 104), 'the Eastern theologians of a somewhat later period take this head-dress to represent the *aether unde solis creditur esse substantia*' (Macrobius, *Sat.* S. 17, 68).

[1] See analogous types on coins of Cremna in Pisidia, under Caracalla and under Aurelian: Fortune, the *modius* on her head, clad in a short tunic, holds a bust of the Emperor on her outstretched hand (Inventory of the Waddington Collection, nos. 3705–20. Cf. *Brit. Mus. Cat.*, Lycia, Pamphylia and Pisidia, Introd., p. cii).

ROMAN IMPERIAL COINS AS A SOURCE FOR GERMANIC ANTIQUITIES

JOSEPH DOBIÁŠ

(*Plate XIII*)

IT will soon be a hundred years since B. Koehne, with his treatise on Roman coins referring to the Germans,[1] inaugurated the study of the relations, particularly the wars, between the Romans and the Germans, on the basis of numismatic sources.[2] This study, becoming more and more intensive, has since then considerably enriched our knowledge of the political relations of these two nations. On the other hand, Roman coins as a source of information about Germanic antiquities—the ancient Germanic head-gear, costumes, arms, &c.—have been practically neglected. Martin Jahn's extensive work dealing with Germanic arms[3] confines itself to the finds. The work of Georg Girke on Germanic costume[4] uses, it is true, two coins which were published already by K. Schumacher in his catalogue of ancient representations of Germans;[5] nevertheless, it is worthy to note that of these two coins one was erroneously assigned to Domitian instead of Marcus Aurelius. I should like, then, to show from at least two examples how Roman numismatics can check, supplement, and correct conclusions drawn from and based only on archaeological remains, which, being for the greater part preserved merely by chance and being therefore inadequate, admit of various interpretations.

[1] B. K(oehne), 'Die römischen auf die Deutschen und Sarmaten bezüglichen Münzen', *Zeitschrift für Münz-, Siegel- und Wappenkunde*, iii, 1843, pp. 257–310 and 325–57; iv, 1844, pp. 1–45.

[2] The material has been collected, although incompletely, by J. Adrien Blanchet, 'Les Gaulois et les Germains sur les monnaies romaines', *Congrès international de numismatique tenu à Bruxelles, Procès-verbaux et mémoires*, Bruxelles, 1891, pp. 112 ff., Francesco Gnecchi, 'Roma e la Germania', *Rivista italiana di numismatica*, xxi, 1908, pp. 347–76, and E. Knitterscheid, 'Die römischen Münzen auf die Germanen', *Mitteilungen für Münzsammler*, i–iii, 1924–6, pp. 249 ff., 262 f., 270 ff., 298 f., 309 ff., 320 ff., 328 f., 337 f., and 347 ff.

[3] Martin Jahn, 'Die Bewaffnung der Germanen in der älteren Eisenzeit etwa von 700 v. Chr. bis 200 n. Chr.', *Mannus-Bibliothek*, xvi, Würzburg, 1916.

[4] Georg Girke, 'Die Tracht der Germanen in der vor- und frühgeschichtlichen Zeit, II', *Mannus-Bibliothek*, xxiv, Leipzig, 1922, pl. $57c_1$ and $57c_2$. Cf. pp. 109 and 113.

[5] K. Schumacher, 'Verzeichnis der Abgüsse und wichtigeren Photographien mit Germanen-Darstellungen', *Kataloge des röm.-germanischen Central-Museums*, i, 3rd edition, Mainz, 1912, p. 60 f. The error is corrected in the revised 4th edition, published by Hans Klumbach with a new title, *Germanendarstellungen I. Darstellungen aus dem Altertum*, Mainz, 1935, p. 43 f.

I

First of all, what was the shape of the ancient German shield? The recent comprehensive handbook on Germanic antiquities by Friedrich Kauffmann[1] distinguishes three kinds: the round, the oval, and the angular shape. Götze, again, in his treatise devoted exclusively to the shape of the Germanic shields,[2] only admits the round and oval shape, whereas Jahn in his monograph[3] states that archaeological evidence tends to indicate that the Germans, for the greater part, carried round shields, but that they also had angular ones. What have Roman imperial coins to say to this difference of opinion?

The earliest victories of the Romans over the Germans which these coins immortalize are the conquests achieved by Drusus, the stepson of Augustus, over the transrhenine Germans in the years 12–9 B.C. Augustus, however, did not celebrate these victories, by which the entire western part of Germany reaching as far as the Elbe was annexed to the Roman Empire, by a special coinage. This issue did not take place until fifty years later, when Claudius, the son of Drusus, succeeded in the year A.D. 41 to the throne.

The most instructive of the coins for our purpose are the aurei and the denarii bearing the legend DE GERMANIS and depicting, as the principal object of the German booty, two crossed shields which, however, are neither round nor oval nor quadrilateral, but hexagonal.[4] (Plate XIII, 2.) Under these conditions it seems certain that, on the other type too, coined in memory of Drusus's conquest of the Germans, in gold, silver, and bronze, and bearing the arch of triumph, a mounted statue, and two trophies,[5] all of the shields on the trophies, as well as those under them, depicted of course on a miniature scale, chiefly in the shape of an elongated oval, are to be taken as hexagonal. This applies especially to the more carefully executed coinage of the Emperor: on some of the aurei and denarii, despite their very small

[1] Friedrich Kauffmann, *Deutsche Altertumskunde*, i, München, 1913, p. 495; ii, München, 1923, pp. 530 and 604 f.

[2] A. Götze, 'Randbeschläge und Form germanischer Schilde der provinzialrömischen Zeit', *Nachrichten über deutsche Altertumsfunde*, 1900, pp. 43–6.

[3] L.c., pp. 164 and 199 ff.

[4] Cohen, *Description historique des monnaies frappées sous l'empire romain*, i², Néron Drusus, nos. 5 and 6; Harold Mattingly–Edward A. Sydenham, *The Roman Imperial Coinage*, i, London, 1923, Claudius, no. 77; Harold Mattingly, *Coins of the Roman Empire in the British Museum*, i, London, 1923, Claudius, nos. 104–7 (pl. 33, 15–17), and 241; Max Bernhart, *Handbuch zur Münzkunde der römischen Kaiserzeit*, Halle (Saale), 1926, pl. 85, 4.

[5] Cohen, l.c. i², nos. 1–4, Néron Drusus, nos. 48 and 49; Mattingly–Sydenham, l.c. i, Claudius, nos. 62, 63, 75, and 76; Mattingly, l.c. i, Claudius, nos. 2 (pl. 31, 2), 36 (pl. 31, 25), 95–103 (pl. 33, 11–14), 121–3 (pl. 34, 10), 187–91 (pl. 36, 2); M. Bernhart, *Handbuch*, pl. 85, 1.

scale, one can see the hexagonal shape of the shields very distinctly, which differ from those on the previously mentioned coins only in the rounding of the corners.

Still another type of Claudius's sestertii depicts German shields; the reverse of these coins represents Drusus, or, more probably, Claudius himself, seated on a curule chair amidst scattered arms.[1] The shields, however, are engraved here in such a crude and almost puerile manner that it is impossible to draw any definite conclusions from them as to the shape of the German shield.

The ample coinage of Domitian relating to his wars with the Germans gives evidence of the shape of the German shield in a still plainer manner. The shield of a German warrior, who is being attacked with a spear-thrust by the Emperor on horseback, is, on the sestertii of the year A.D. 85, obviously hexagonal[2] (Plate XIII, 10). Likewise, on sestertii dating from the same year, a similar shield is held by a German woman kneeling before the Emperor—an obvious symbol of Germany's humiliation[3] (Plate XIII, 9). The crossed shields on the asses and the dupondii coined in the same year differ from those just described only in the rounding of their angles[4] (Plate XIII, 6). However, the shields on the dupondii with Victory standing before the trophy[5] (Plate XIII, 8) and on those with two captives under the trophy are distinctly hexagonal.[6] And such also appear to be the shields on three of the most eloquent types of Domitian's coins, which commemorate his victory over the Germans. One of them represents a mourning German woman, seated on a large hexagonal shield under which a broken spear, another typically Germanic weapon, is engraved[7] (Plate XIII, 3). The other type,

[1] Cohen, l.c. i², Néron Drusus, no. 8; Mattingly–Sydenham, l.c. i, Claudius, nos. 78 and 79; Mattingly, l.c. i, Claudius, nos. 157–65 (pl. 35, 7) and 208–12 (pl. 36, 8); M. Bernhart, *Handbuch*, pl. 4, 11.

[2] Cohen, l.c. i², Domitien, nos. 483–7; Mattingly–Sydenham, l.c. ii, London, 1926, Domitian, nos. 257, 284, 317, 344, and 361; Mattingly, l.c. ii, London, 1930, Domitian, nos. 339–41 (pl. 73, 2), 380 (pl. 75, 7), and 409 (pl. 77, 6.)

[3] Cohen, l.c. i², Domitien, nos. 488–90; Mattingly–Sydenham, l.c. ii, Domitian, nos. 258, 285 (pl. vi, 95), and 318; Mattingly, l.c. ii, Domitian, nos. 299 (pl. 71, 3), 300, 337 (pl. 73, 1), 338, and 379 (pl. 75, 6).

[4] Cohen, l.c. i², Domitien, nos. 536–8; Mattingly–Sydenham, l.c. ii, Domitian, nos. 267, 295, 303, and 329; Mattingly, l.c. ii, Domitian, nos. 311 (pl. 71, 10), 351, 352 (pl. 73, 9), and 357 (pl. 73, 12).

[5] Cohen, l.c. i², Domitien, nos. 639–45; Mattingly–Sydenham, l.c. ii, Domitian, nos. 268, 296, 330 *a*, *b*, and 339; Mattingly, l.c. ii, Domitian, nos. 312 (pl. 71, 11) and 367 (pl. 74, 10).

[6] Cohen, l.c. i², Domitien, no. 539; Mattingly–Sydenham, l.c. ii, Domitian, no. 266; Mattingly, l.c. ii, Domitian, no. 310 (pl. 71, 8).

[7] Cohen, l.c. i², Domitien, nos. 148, 156, 163, 169, 177, 188, 199, 206, 211, 224, 225, 226, and 241; Mattingly—Sydenham, l.c. ii, Domitian, nos. 66 *a*, 69, 72, 77

bearing the eloquent legend GERMANIA CAPTA, depicts a German standing before a trophy with his hands bound behind his back and a mourning woman sitting at its foot[1] (Plate XIII, 11). All of the shields represented on this coin, those suspended from the trunk of a tree, as well as those on which the woman is seated and those lying at the feet of the bound German, are distinctly hexagonal. The same feature recurs on the third type, with Victory inscribing DE GER on a shield set on a trophy[2] (Plate XIII, 8).

With Domitian's success, the pacification of the German territory might have been considered as accomplished. Therefore the Germania represented on Trajan's coins is already depicted with the olive-branch of peace in her right hand. The allegorical figure, it is true, is not characterized by an expressed inscription, but she should at once be recognized as Germania from the hexagonal shape of the shield on which she is sitting[3] (Plate XIII, 4). Such an interpretation of the allegorical figure is corroborated also by Hadrian's denarii, representing, on their reverse, Germany expressly characterized as such by the legend GERMANIA[4] (Plate XIII, 5). She is depicted as a woman, clad in a long robe, holding a spear in her right

(pl. v, 79), 83, 90, 103, 103*a*, 111, 111*a*, 127, 164, 184, and 202; Mattingly, l.c. ii, Domitian, nos. 81 (pl. 62, 1), 82, 85 (pl. 62, 6), 91 (pl. 62, 9), 94 (pl. 62, 11), 99 (pl. 62, 16), 125 (pl. 63, 13), 143 (pl. 64, 8), 174 (pl. 65, 6), 211 (pl. 66, 5), and 228 (pl. 66, 15); M. Bernhart, *Handbuch*, pl. 85, 6.

[1] Cohen, l.c. i², Domitien, nos. 135–7; Mattingly–Sydenham, l.c. ii, Domitian, nos. 252, 278 *a*, *b*, 312, and 341; Mattingly, l.c. ii, Domitian, nos. 294 (pl. 70, 8), 325 (pl. 72, 8), 326, 372 (pl. 75, 4), and 395 (pl. 76, 6); M. Bernhart, *Handbuch*, pl. 85, 3. See, on this type of coins, E. Babelon, 'Quelques monnaies de l'empereur Domitien (*Germania capta*)', *Revue numismatique*, ive Sér., xxi, 1917–18, pp. 25–44, pl. 1.

[2] Cohen, l.c. i², Domitien, nos. 469–75; Mattingly–Sydenham, l.c. ii, no. 255; Mattingly, l.c. ii, Domitian, nos. 295† (pl. 70, 10), 330 (pl. 72, 7), 331, 374, and 375.

[3] Cohen, l.c. ii², Trajan, nos. 207, 208, 220, 221, and 290; Mattingly–Sydenham, l.c. ii, Trajan, nos. 5, 15 (pl. viii, 132), 35, and 36; M. Bernhart, *Handbuch*, pl. 85, 8; Paul L. Strack, *Untersuchungen zur römischen Reichsprägung des zweiten Jahrhunderts*, i, Stuttgart, 1931, nos. 12, 23, 31, and Anhang iv, no. 16. Cf. pp. 69 ff. (pl. 1, 12); S. L. Cesano, 'Ripostiglio di aurei imperiali rinvenuto a Roma', *Bullettino della Commissione archeologica comunale di Roma*, lvii, 1930, p. 54 f.; Mattingly, l.c. iii, London, 1936, Trajan, nos. 8 (pl. 9, 5), 34, 35 (pl. 9, 16), and 67 (pl. 10, 9). Cf. L. Laffranchi, 'Curiosità numismatiche. La Germania pacifera', *Bullettino italiano di numismatica*, i, Milano, 1917, pp. 3 ff. Cohen as well as Mattingly describes the shields as oblong.

[4] Cohen, l.c. ii², Adrien, nos. 802–7; Petrus Bieńkowski, *De simulacris barbararum gentium apud Romanos*, Cracoviae, 1900, p. 56 f.; Mattingly–Sydenham, l.c. ii, Hadrian, nos. 302–4 (pl. xiii, 273); P. L. Strack, l.c. ii, Stuttgart, 1933, nos. 300–2. Cf. p. 160; Mattingly, l.c. iii, Hadrian, nos. 837–42 (pl. 63, 8 and 9). Mattingly, l.c. iii, pp. cxliii and 345, speaks of the typical oblong shield. As a matter of fact, the normal shape of the shields on these denarii of Hadrian is the hexagonal one. The oblong shape seems to be a simplification of that original form, due entirely to the fancy of the engraver.

hand and resting her left on a shield—this again being distinctly hexagonal.

The coins of the Emperor Marcus Aurelius and those of his son and co-Emperor Commodus, which were coined during the wars waged against the trans-Danubian Germans, chiefly the Marcomanni and the Quadi, are among the principal sources of our knowledge of Germanic antiquities. A whole collection of arms is represented on the coins minted in celebration of the joint triumph of the two emperors at the end of the year A.D. 176.[1] It was on these coins, minted in all three metals, that for the first time the hexagonal shields appear side by side with the distinctly round or oval ones. Since coins of this type were minted with two legends, DE GERMANIS (Plate XIII, 15) and DE SARMATIS (Plate XIII, 16), the following explanation of the different shape of the shields might seem obvious: that on the heap arms and war implements of both nations are mixed together, the hexagonal shields representing the defeated Germans and the oval ones the Sarmatians. Similarly one might interpret the other type of coins minted on the same occasion. Its reverse depicts a trophy at the foot of which two captives are seated—a male figure with his hands bound behind his back and a mourning woman, with the inscriptions DE GERM and DE SARM.[2] The striking fact that the crossed shields fixed on one arm of the cross-beam of the trophy are hexagonal, whereas the shield hanging on the other arm is round (Plate XIII, 14), might be explained by the intention of differentiating between the Germanic and Sarmatian arms. However, since technical and artistic reasons may equally well have determined this solution, it is impossible to draw from this fact any definite conclusions.

The rare sestertii dating from the year A.D. 172 and bearing the legend CLEMENTIA AVG[3] might certainly favour some such

[1] Cohen, l.c. iii², Marc-Aurèle, nos. 154–6, 163, 172–4, Commode, nos. 79, 89–91, 95, 96, and 103; Mattingly–Sydenham, l.c. iii, London, 1930, M. Aurelius, nos. 337, 338, 362, 363, 366, 367, 629, 630, 633, 635, 1162, 1184, 1190, 1191, 1221, 1569, 1570, 1576, and 1577 (pl. ix, 178 and 179; pl. x, 212; pl. xii, 250 and 251); M. Bernhart, *Handbuch*, pl. 85, 2 and 9, pl. 87, 11 and 12.

[2] Cohen, l.c. iii², Marc-Aurèle, nos. 157–61 and 164–71, Commode, nos. 76–88, 92–4, 97–102; Mattingly–Sydenham, l.c. iii, nos. 339–42, 364, 365, 632, 634, 1179–82, 1185–9, 1532, 1533, 1554–7, 1565–8*c*, 1571–5.

[3] Cohen, l.c. iii², Marc-Aurèle, no. 27. Cohen's description, also accepted by Mattingly–Sydenham, l.c. iii, M. Aurelius, no. 1019, was corrected, from the Viennese example, by J. Dobiáš, 'Le Monnayage de l'empereur Marc-Aurèle et les bas-reliefs historiques contemporains', *Revue numismatique*, IVe Sér., xxxv, 1932, pp. 138 and 164, n. 37 (pl. v, 2). The hexagonal shape of the shield is also distinct on the better-preserved example of The Hague Collection. This one, however, is struck with a different die.

explanation. Cohen had described this type wrongly, as if it depicted a figure kneeling before the Emperor who was resting his right elbow on a shield, the shape of which he explicitly described as oblong. Both of the examples known to me, however (the one in The Hague Royal Collection, the other in the Vienna Bundessammlung), show a shield distinctly hexagonal, which is held in both hands by the kneeling figure—an obvious allegory of the defeated Germany—and not by the Emperor. Likewise the medallion of Marcus Aurelius, dating from the year A.D. 178 and of the identical type,[1] has a hexagonal shield. Gnecchi, who knew only two specimens of it, one in Madrid and the other in Frankfurt, describes it explicitly as oval, though this seems to be a mere repetition of the inaccurate description of the Frankfurt specimen, such as was given by Quilling.[2] Both of the specimens known to Gnecchi are badly preserved. The Madrid piece is, on the whole, the better, but it is completely corroded just in the place where the shield should be depicted, and is therefore of no use for our purpose. The shield of the Frankfurt piece, though considerably worn, was described by Quilling as an oval one; it is, nevertheless, so far as may be judged from the reproduction, quite distinctly of a hexagonal shape.[3]

It is, of course, necessary to call attention to the fact that the reverse described is not an original type, but that it is a copy of that of the above-mentioned sestertii of the Emperor Domitian.[4] Their complete identity shows that the coins of Marcus also represent in a symbolical manner the humiliation of Germany and therefore show the German shield, but, on the other hand, it may awaken doubt as to whether the conditions represented on them still existed at the time of Marcus's reign. That such a precaution should be taken is justified by another type of Marcus's sestertii, taken over from the coinage of Domitian, the reverse of which represents a trophy, at the side of which we observe a German standing bound, and to the left,

[1] Fr. Gnecchi, *I medaglioni romani*, ii, Milano, 1912, p. 27, no. 4 (pl. 59, 6).

[2] F. Quilling, 'Ausgewählte römische Münzen und Medaillons der städtischen Münzsammlung in Frankfurt a.M.', *Zeitschrift für Numismatik*, xx, 1897, pp. 208–15, pl. vii, 2. Quilling's conclusions drawn from the medallion are false, being based on incorrect dating of it (TR. P. XXXI instead of TR.P.XXXII).

[3] There exists one more specimen of this medallion, unknown to Gnecchi, in the Vienna Bundessammlung, no. 32135. It is unfortunately as badly preserved as the other two, so that even on it the shape of the shield cannot be discerned with absolute certainty. Of the legends there remains on the obverse M AVREL ANTONINVS AV*g germ sarm tr p xx*XII, on the reverse, IMP VIII*i c*OS III PP. Weight 49.58 g.

[4] See p. 162.

seated at its foot, a mourning woman.[1] The reverses of both coins, although they appear, at first glance, to be identical, reveal a greater difference than the mere alteration of the legend, GERMANICO AVG in place of GERMANIA CAPTA. Whereas all the shields depicted on the coins of Domitian are hexagonal, one of the shields which is suspended from the trophy on the sestertii of Marcus Aurelius is round. And it is likewise so with the shields lying about on the ground: although even they are predominantly depicted as hexagonal, some of the dies show also round or at least oval shields (Plate XIII, 13). Because of the exact conformity in all other details it is hardly possible to doubt that the alteration in the shape of the shields was intentional and deliberate.

This is proved further by another type representing Germania as a mourning woman seated in the midst of arms (on asses), though more frequently under a trophy (on the denarii, sestertii, asses, and dupondii).[2] On bronze denominations, the larger proportions of which permitted a more extensive legend, we read the characteristic inscription, GERMANIA SVBACTA. On this type also we observe hexagonal shields suspended from one arm of the cross-beam of the trophy, whereas on the other arm again there is one round shield (Plate XIII, 12). And it is similar on the medallion bearing the same legend, struck in the year A.D. 173, the larger size of which enabled the engraver to execute the relief in a more decorative and elaborate manner.[3] To the right of the trophy, under which a captured German and a German woman are seated, appears the Emperor holding a spear in his left hand; on the left stands the goddess Victory, hanging a shield on to the trophy. Though all the known specimens are badly preserved, nevertheless both of the shields depicted on them seem to be rather oval than angular. The same holds true of the medallion of the year A.D. 178, which represents the Emperor leaning against a high trophy at the foot of which are seated two captives.[4]

Both forms of shield are depicted also on the coins of Marcus

[1] Cohen, l.c. iii², Marc-Aurèle, nos. 227–9; Mattingly–Sydenham, l.c. iii, M. Aurelius, nos. 1058–62.

[2] Cohen, l.c. iii², Marc-Aurèle, nos. 215–26; denarii with German woman under the trophy: 296–301 and 350; Mattingly–Sydenham, l.c. iii, M. Aurelius, nos. 277–80, 289–93, 306, 1021–7, 1049–57, 1094, and 1095. Cf. corrections and supplements to this catalogue by J. Dobiáš, 'Nové dílo o mincovnictví Antoninů' (a new work on the coinage of the Antonini), *Numismatický časopis československý*, viii, 1932, pp. 7 and 10.

[3] Cohen, l.c. iii², Marc-Aurèle, no. 214; Fr. Gnecchi, l.c. ii, p. 27 f., nos. 7–9 (pl. 59, 9 and 10).

[4] Fr. Gnecchi, l.c. ii, p. 29, no. 23 (pl. 60, 9) describes three specimens. The fourth is published in the sixteenth catalogue of the firm 'Ars Classica', Geneva, 1933, no. 1812 (pl. 69, 1812).

Aurelius, representing the goddess Roma seated on a pile of shields,[1] and on the coins from the years A.D. 176/7 bearing the inscription PAX AETERNA and representing the goddess of peace setting fire to a heap of arms.[2] Despite the minute scale it is quite possible to distinguish both shapes of shield (Plate XIII, 17).

We need not accumulate further documents to prove that the characteristic shape of the German shields, as they appear on Roman imperial coins, was at first hexagonal and that it remained so during the entire first century and during the reign of Hadrian, and that it is not until the reign of Marcus Aurelius that we find on them, side by side with the hexagonal shields, also the round or oval ones.

In this point there is a perfect agreement between the types on the coins and other plastic representations of German shields.[3] On the greater number of the monuments dating from the first century A.D. the German infantry carries angular shields, usually hexagonal; on the reliefs of the column of Antoninus, depicting the wars of the Emperor Marcus with the trans-Danubian Germans, we find, however, besides the hexagonal shields also the round and oval ones.[4]

As it is generally known that the Romans long confounded the Germans with the Gauls, an objection might be raised that the sculptural monuments of the earlier imperial period depict the Germans carrying hexagonal shields, such as are commonly known from the reliefs of the arch of Orange, which are sometimes interpreted as Gallic. However, the difficulty of attributing with certainty to any nation the arms depicted on this arch and on other monuments sometimes attributed to the Gauls, and the consistency of the ancient sculptural monuments in representing the Germans as they do, tends to counterbalance this objection, as also does an important literary testimony. As a matter of fact, Tacitus, in speaking of the German neighbours of the Marcomanni, Quadi, and other German and non-German tribes in the Sudetic lands and the westernmost part of the Carpathians in the north-east, states that the round shield is characteristic of them.[5]

[1] Cohen, l.c. iii², Marc-Aurèle, nos. 284–8; Mattingly–Sydenham, l.c. iii, M. Aurelius, nos. 1037–40, 1066, and 1067.

[2] Cohen, l.c. iii², Marc-Aurèle, nos. 360–5; Mattingly–Sydenham, l.c. iii, M. Aurelius, nos. 1163–5 and 1202–4.

[3] K. Schumacher–H. Klumbach, *Germanendarstellungen* (see p. 160, n. 5); Karl Woelcke, 'Beiträge zur Geschichte des Tropaions', *Bonner Jahrbücher*, cxx, Bonn, 1911, pp. 158 ff.

[4] E. Petersen–A. v. Domaszewski–G. Calderini, *Die Marcus-Säule auf Piazza Colonna in Rom*, München, 1896, pl. 27 B, 31 AB, 64 A, and 65 A.

[5] Tacitus, *Germ.* 44: 'Omniumque harum gentium insigne rotunda scuta.'

The only logical conclusion to be drawn from this statement is that it was the angular—and, judging from the reliefs on the coins and from other plastic monuments, chiefly the hexagonal—shape of the shields that must have been typical for the others, i.e. the western and southern Germans.

This conclusion is also confirmed by archaeological finds and can be documented archaeologically from the remains of metal forging from the borders of Germanic shields. As early as in the La Tène period (the later Iron Age), we find straight pieces which testify to the existence of the angular shape, as well as curved ones which had formed the borders of round or oval-shaped shields. Furthermore, corner-forging also was found, this being bent in a blunt angle approximating to a right angle, which could have belonged to an angular as well as to a hexagonal shield.[1] The same holds true of the early imperial period. Not only have we from this period bent corner-forgings, but a grave at Wachow, in Brandenburg, actually yielded a complete forging of a hexagonal shield *in situ*, lying alongside of a buried warrior.[2]

No doubt, therefore, can be entertained as to whether the Germans bordering on the Roman Empire also carried hexagonal shields. On the contrary, judging from the reliefs on the coins, we may assume that it was just those hexagonal shields that were characteristic of them. The fact that the graves of German warriors far more frequently yield parts of rounded forging than straight parts or parts bent into an angle may be explained otherwise than by the prevalence or by the exclusive use of round or oval shields: by the accident of discovery or by the greater rarity of border-forgings on the long angular shields, for on the whole it seems that the majority of the Germanic shields entirely lacked border-forging, or by other explanations.

The question as to whether the hexagonal shields came to the Germans through Gallic influence, or whether they were of domestic origin, can only be solved by archaeology. Nevertheless, their use by the Germans cannot be doubted on any grounds.

The fact that the Roman coins of the second half of the second century A.D. bear round shields side by side with hexagonal ones finds its explanation in the accounts of the wars which the Emperor Marcus Aurelius waged with the Germans, along with the already quoted passage of Tacitus's *Germania*. Whereas all the German wars,

[1] M. Jahn, l.c., p. 164.

[2] R. Stimming, 'Waffen der römischen Kaiserzeit in der Mark Brandenburg', *Mannus*, iv, 1912, p. 310, pl. xliv = Gustaf Kossinna, 'Germanische Kultur im 1. Jahrtausend nach Christus', I, *Mannus-Bibliothek*, L, Leipzig, 1932, p. 37. Cf. M. Jahn, l.c., p. 200 with n. 2.

the memory of which has been preserved on the coinage of the first century A.D., were waged with the western Germans—the Germania depicted on Hadrian's denarii naturally represents an allegory of the Roman province of the same name—these western Germans were in the so-called Marcomannic wars for the first time allied to their kinsfolk from central and north-eastern Germany;[1] and these, according to the account given by Tacitus, carried round shields. The agreement of this passage with the reliefs on the coins of Marcus Aurelius is a new proof of the fact that the shape of the shields depicted on them is not a fancy of the engraver, but that they agree with the actual shapes of the shields which were taken as booty by the Romans during the Marcomannic wars.

II

Two trophies carved about the centre of the relief on the column of Marcus Aurelius, which have been already mentioned in this paper, exhibit among other spoils peculiar objects which end in the shape of a dragon's head.[2] The learned commentators on the reliefs of the column have devoted no special attention to this unusual object. As far as I am aware, only two scholars, Fiebiger[3] and A. J. Reinach,[4] have called attention to them. Both of them considered it a military ensign in the form of a dragon, which was already well known in antiquity among the Oriental peoples, such as the Indians, Persians, and the Parthians, and especially among the Scythians. Moreover, the Dacians too used such dragon-like ensigns, and it was from them or from the Parthians—according to Fiebiger—that the Romans adopted them; and the *draco* became, in the third century A.D., one of the commonest Roman military ensigns. Fiebiger seems to ascribe the supposed dragon-ensigns on the Marcus Aurelius column also to the Dacians. A. J. Reinach, however, ascribes them to the Sarmatian Iazyges, who, in the year of their defeat,

[1] *Vita Marci*, 22, 1: 'Gentes omnes ab Illyrici limite usque in Galliam conspiraverant, ut Marcomanni, Varistae, Hermunduri et Quadi, Suevi, Sarmatae, Lacringes et Burei † hi aliique cum Victualis, Sosibes, Sicobotes, Roxolani, Basternae, Halani, Peucini, Costoboci'; Eutropius, viii. 13, 1: 'Bellum Marcomannicum confecit, quod cum his Quadi, Vandali, Sarmatae, Suevi atque omnis barbaria commoverat.' Cf. A. v. Domaszewski, 'Der Völkerbund des Marcomanenkrieges', *Serta Harteliana*, Wien, 1896, pp. 8 ff. (to be used with extreme caution).

[2] *Die Marcus-Säule*, pl. 64 and 65 (cf. the tracing in the text-book, p. 71); Max Wegner, 'Die kunstgeschichtliche Stellung der Marcussäule', *Jahrbuch des deutschen archäologischen Instituts*, xlvi, 1931, p. 63.

[3] Fiebiger, 'Draco 2', in *Real-Encyclopädie der classischen Altertumswissenschaft*, v. 2, Stuttgart, 1905, col. 1633 f.

[4] A. J. Reinach, 'Signa militaria', in Ch. Daremberg–Edm. Saglio, *Dictionnaire des antiquités grecques et romaines*, iv. 2, p. 1321.

A.D. 175, had to pay tribute to the Romans in the form of a contingent of 5,000 cavalrymen, and considers this to be the date when the *draco* was introduced into the Roman army as a military ensign.

The same object, as is represented on the trophies of the column of Antoninus, is also represented on the coins of the Emperors Marcus Aurelius and Commodus, coined in the year A.D. 176 on the occasion of their joint triumph over the Germans and Sarmatians.[1] On the reverse of these coins this object appears to protrude above the heap

[1] See p. 164.

of arms, although not always in an equally distinct manner. It is, however, more evident on the more carefully engraved aurei than on the sestertii, on which, despite their larger size and greater number of die-variants, the theriomorphic ending of the object is frequently quite indistinct. It is, however, depicted very expressively

and at the same time in the identical manner as on the relief of the Antoninus column, on a sestertius, now in the British Museum, which is, I believe, a unique variant of the common type, a variant on which the inscription DE GERMANIS, which usually stands in the exergue, is replaced by the formula S.C. and itself forms the continuation of the normal legend bordering the upper edge.[1] This unusually clear and clean-cut piece (Plate XIII, 15) confirms the view that the object in question is identical with those on the less carefully executed variants of the same type.

It has already been mentioned that the coins bearing on the reverse a heap of arms were minted with a double legend: DE GERMANIS and DE SARMATIS. There can be no doubt that the engraver

[1] A woodcut was made from this British Museum example for the *Dictionary of Roman Coins* compiled by S. W. Stevenson, C. R. Smith, and F. W. Madden, London, 1889, p. 417. This specimen, however, was not registered in a catalogue until by Mattingly–Sydenham, l.c. iii, M. Aurelius, no. 1162.

made no effort to discriminate between the arms of the two nations: despite the difference in the legend, the booty depicted on the coins comprises on both types the same objects. The fact, therefore, that we find represented on the very same heap the arms and ensigns of two different peoples gives rise to the question whether we are to consider the enigmatic objects with the dragon's head as German or Sarmatian war-implements. The latter possibility might be favoured by the tribal relationship of the Sarmatians and the Scythians, of whom, as the literary sources inform us, the use of the dragon-ensign was typical.[1] A. J. Reinach, as has been already mentioned, also voiced this opinion.

Nevertheless, we have a literary document which shows that the use of the dragon-ensign by the trans-Danubian Germans is not impossible. It is the letter of the Emperor Marcus Aurelius addressed to the Senate giving an account of the well-known 'miracle' which saved his army, in the land of the Quadi, from perishing of thirst and heat-stroke. There is no doubt that this letter, at least in its present form, is a forgery, but it is none the less certain that it drew on authentic sources, the accuracy of which can be verified by documents which could have hardly been known to the forger. It is quite possible to include along with the other authentic elements of this letter, which Harnack had already pointed out,[2] the story of the Roman army being waylaid by seventy-four German 'dragons'. There is hardly another explanation to offer of this term than 'military unit organized under the ensign of the dragon'.[3]

Despite this apparent strengthening of the thesis of Reinach and Fiebiger, their interpretation of the enigmatic object on the column of Antoninus and on the coins of the Emperors Marcus Aurelius and Commodus can hardly be accepted as correct. According to the description of the dragon-ensign, as preserved by Arrian[4] and Am-

[1] Arrian, *Tact.* 35, 3 (see below, n. 4).

[2] A. Harnack, 'Die Quelle der Berichte über das Regenwunder im Feldzuge Marc Aurel's gegen die Quaden', *Sitzungsberichte der königl. preuß. Akademie der Wissenschaften zu Berlin*, 1894, ii, pp. 862 ff. and 866 ff.

[3] Apollinaris Sidonius, *Panegyricus Maioriani* (Carm. V), vv. 402 ff. mentions the *dracones* in the army of the German Vandals who in the year A.D. 457 attacked the coast of Campagna from the sea, and describes them in exactly the same manner as Arrian: 'Iam textilis anguis discurrit per utramque aciem, cui guttur adactis turgescit zephyris; patulo mentitur hiatu iratam pictura famem pannoque furorem aura facit, quotiens crassatur vertile tergum flatibus et nimium iam non capit alvus inane.' But in so late a period it might also well concern ensigns borrowed and imitated from the Romans.

[4] Arrian, *Tact.* 35, 3: *Τὰ Σκυθικὰ δὲ σημεῖά ἐστιν ἐπὶ κοντῶν, ἐν μήκει συμμέτρῳ δράκοντες ἀπαιωρούμενοι. Ποιοῦνται δὲ ξυρραπτοὶ ἐκ ῥακῶν βεβαμμένων, τάς τε κεφαλὰς καὶ τὸ σῶμα πᾶν ἔστε ἐπὶ τὰς οὐρὰς εἰκασμένοι ὄφεσιν, ὡς φοβερώτατα οἷόν τε εἰκασθῆναι.*

mianus Marcellinus,[1] whose accuracy is confirmed also by the representations preserved, the Oriental *draco* (δράκων) was an actual dragon, i.e. a serpent which was made out of coloured fabric in a cylindrical shape, this being attached to the point of a spear. The wind entering, during rapid movement, into the opened mouth of the dragon, not only caused a fluttering movement of its tail, but also produced a hissing sound reminding one of the hissing of a serpent.[2] The dragon-like objects on the column and on the coins of Marcus and Commodus, on the contrary, have very little in common with this description.[3] The manner in which they are depicted on these coins and on the monument as well leaves hardly any doubt as to the solidity of the material out of which they were made, this being either wood or metal. We need not, however, content ourselves with this negative solution, for it may be shown with great probability that this supposed

[1] Ammianus Marcellinus, xvi. 10, 7: 'Eumque post antegressos multiplices alios purpureis subtegminibus texti circumdedere dracones hastarum aureis gemmatisque summitatibus inligati, hiatu vasto perflabiles et ideo velut ira perciti sibilantes caudarumque volumina relinquentes in ventum.'

[2] The dragons are most distinctly depicted on the column of Trajan (see Vasile Pârvan, *Dacia*, Cambridge, 1928, pl. 14). It is evident from the reliefs executed on the pedestal of this column that the dragon's head was made of some solid material, wood or metal, and that it was fastened horizontally by the lower jaw of the opened mouth to a spear. The head was elongated into a cylindrical tube made of fabric, and this had the shape of a serpent's body. Cf. also the relief of the basilica of Neptune published by Hans Lucas, 'Die Reliefs der Neptunsbasilica in Rom', *Jahrbuch des kais. deutschen archäolog. Instituts*, xv, 1900, pp. 17 ff. (fig. 22), and Petrus Bieńkowski, l.c., p. 50 (fig. 34), and the frieze of the eastern front of the arch of Constantine at Rome, published by A. J. B. Wace, 'Studies in Roman Historical Reliefs', *Papers of the British School at Rome*, iv, London, 1907, p. 274 (pl. xxxvii, 1), and Giuseppe Wilpert, 'Le sculture del fregio dell'arco trionfale di Costantino', *Bollettino della Commissione archeologica comunale di Roma*, L, 1923, p. 36 ff. (pl. i–ii, B).

[3] The enigmatic objects on the column of Marcus Aurelius might be considered as dragons only if one supposed that the sculptor of the said column, imitating the reliefs of Trajan's column, had misunderstood his model. Indeed, even on the column of Trajan the allegorical figure of Victory is depicted in the centre, having trophies on both sides. On these trophies, both on that to the left and that to the right of the figure, as well as on the pile of arms lying under the trophies, the dragons are depicted very distinctly. This interpretation, however, is opposed not only by the coins of Marcus Aurelius and Commodus, but also by the evident endeavour of the sculptor of the Marcus column to depict the booty as a Germanic one as realistically as possible. This applies to the fur cloak on the trophy to the left of Victory, one of the most characteristic articles of clothing of the trans-Danubian Germans (see J. Dobiáš, *Le Monnayage de l'empereur Marc-Aurèle et les bas-reliefs historiques contemporains*, p. 160, with the n. 117 on p. 172), as well as to the shape of the shields (see above, p. 167), nay even to the mask-helmet (cf. Sophus Müller, *Nordische Altertumskunde*, ii, Strassburg, 1898, p. 128, with fig. 89 on p. 122 and fig. 91 on p. 129). I cannot, therefore, agree with Max Wegner, *Die kunstgeschichtliche Stellung der Marcussäule*, p. 69 f., as to his manner of treatment of the trophies on both columns.

draco is no military ensign after all, but a musical instrument, typical of the Gauls, who called it *carnyx*.[1]

Eustathios in his commentary on Homer's *Iliad* describes this trumpet as a not very large instrument of a shrill pitch, shaped in the form of a cast-metal pipe with a leaden mouthpiece and an ending in the shape of an animal's head. This type of trumpet was expressly described by him as a Gallic type.[2] And the fact that it was really a Gallic national musical instrument[3] is proved by monuments that survive, first of all by coins, Gallic, British, and Roman, among these especially Caesar's denarii depicting the carnyx as a characteristic of the Gallic nation[4] (Plate XIII, 11). On the surviving reliefs of the arch of Orange we find the carnyx depicted among the booty taken from the barbarians more than thirty times and it is likewise found on many other monuments of south-eastern Gaul.[5]

But how is the undeniable fact that the carnyx was typically a Gallic instrument to be harmonized with the fact that it is depicted on coins commemorating the triumph of the Emperor Marcus Aurelius over the Germans and Sarmatians? The explanation of this phenomenon is not difficult. It is well known that in the long wars

[1] See Curt Sachs, 'Lituus und Karnyx', *Festschrift zum 90. Geburtstage Rochus Freih. von Liliencron*, Leipzig, 1910, pp. 241 ff. and Friedr. Behn, 'Die Musik im römischen Heere', *Mainzer Zeitschrift*, vii, 1912, p. 39 f.

[2] Eustathios, *Comm. ad Homeri Iliadem*, 1139, vv. 57 ff. (iv. 65, ed. Stallbaum): *Τρίτη [i.e. σάλπιγξ], ἡ Γαλατική, χωνευτή, οὐ πάνυ μεγάλη, τὸν κώδωνα ἔχουσα θηριόμορφόν τινα καὶ αὐλὸν μολύβδινον, εἰς ὃν ἐμφυσῶσιν οἱ σαλπισταί· ἔστι δὲ ὀξύφωνος καὶ καλεῖται ὑπὸ τῶν Κελτῶν κάρνυξ.*

[3] M. de Lagoy, *Recherches numismatiques sur l'armement et les instruments de guerre des Gaulois*, Aix, 1849, p. 16; Ch. Lenormant, 'Mémoire sur l'arc de triomphe d'Orange', *Académie des inscriptions et belles-lettres, Comptes rendus*, 1857, p. 234 f.; Moritz Hoernes, *Kultur der Urzeit*, 3rd edition by Friedrich Behn, Berlin–Leipzig, 1923, p. 122; Camille Jullian, *Histoire de la Gaule*, ii[5], Paris, 1924, p. 199.—A. Bertrand claims, in his polemic with Ch. Lenormant (*Revue archéologique*, IIIe Sér., xxiv, 1894, i, p. 158 f.), that the use of the carnyx was rather an exception with the Gauls; with this statement, however, I cannot agree, chiefly in view of the text of Eustathios.

[4] M. de Lagoy, l.c., pp. 15 ff.; John Evans, *The Coins of the Ancient Britons*, London, 1864, pp. 191 f. (pl. iii, 11), 231 f., and 233 (pl. v, 10 and 12), Supplement, London, 1890, p. 540 (pl. xx, 9); J. de Witte, 'L'Arc de triomphe d'Orange', *Revue archéologique*, IIIe Sér., x, 1887, ii, pp. 135 f. (pl. xiv); Ernest Muret–M. A. Chabouillet, *Catalogue des monnaies gauloises de la Bibliothèque Nationale*, Paris, 1889, p. 115, nos. 5044–8 (DVBNOREIX). Cf. Table de matières, s.v. 'Carnyx', and Henry de la Tour, *Atlas de monnaies gauloises*, Paris, 1892, pl. xv, 5044; Alexandre Bertrand, 'Le vase ou chaudron de Gundestrup', *Revue archéologique*, IIIe Sér., xxiv, 1894, i, pp. 153 and 159 ff.; Adrien Blanchet, *Traité des monnaies gauloises*, i, Paris, 1905, p. 161 f. (fig. 13), 290 (figs. 164 and 165) and ii, p. 396 f. (fig. 413?); Rob. Laurent–Charles Dugas, 'Le Monument romain de Biot (Alpes-Maritimes)', *Revue des études anciennes*, ix, 1907, pp. 58 ff. (pl. vi).

[5] Émile Espérandieu, *Recueil général des bas-reliefs de la Gaule romaine*, i, Paris, 1907, p. 29, no. 24; p. 171, no. 236; p. 181, no. 243; pp. 197, 200, 201, 204, and 205; p. 297, no. 431; p. 424, no. 691, and p. 428, no. 701.

which are generally called the Marcomannic wars, after the most famous participants on the barbarian side, and to which the inscriptions refer in the phrase *bellum Germanicum et Sarmaticum*, not only German and Sarmatian tribes participated, but also practically all the tribes in the trans-Danubian territory, and among these even the last remains of the local Gallic aboriginals. In the westernmost Carpathians, in a region corresponding very probably to the present-day Slovakia, there was the seat of the Cotini, whose Gallic nationality Tacitus had already pointed out.[1] Their participation in the so-called Marcomannic wars on the side of the enemies of Rome is testified to by Dio Cassius, who also informs us that the Romans punished the Cotini for their participation in these wars by exterminating them completely.[2] Under these conditions we cannot be surprised by the presence of Gallic instruments on coins which were to immortalize the triumph of Marcus Aurelius and Commodus.

Nevertheless, we cannot altogether exclude the possibility that the instrument which is depicted on the above-quoted coins was taken over by the Germans from the Gauls along with the other elements of their civilization. For the Gauls were not the exclusive users of the carnyx. This is attested by the presence of these instruments on the reliefs of the pedestal of Trajan's column among other pieces of the Dacian spoils.[3] The fact that the Germans also used the carnyx of Gallic origin, besides their national horns, the bronze 'Luren', which are being recovered in whole hoards from the marshes and moors of northern Germany and Denmark,[4] and which are to be distinguished among the spoils depicted on our coins by their huge and characteristic bow-shaped sweep, seems to be proved by Domitian's dupondii, minted in celebration of his German exploits, with vexillum, crossed spears, and shields on the reverse.[5] In the bent implements, ending in a dragon's head, one can hardly recognize anything else than the carnyx (Plate XIII, 6). Finally, the use of the carnyx among the Germans seems to be proved by the famous relief on the silver kettle found in 1891 in the moorland near Gundestrup in Jutland, now in the Copenhagen Museum, representing a human

[1] Tacitus, *Germ.* 43: 'Cotinos gallica . . . lingua coarguit non esse Germanos.'

[2] Cassius Dio, lxxi. 12, 3: *Κοτινοὶ . . . αὐτὸν ἐκεῖνον [i.e. Ταρρουτήνιον Πάτερνον] δεινῶς ἐκάκωσαν καὶ μετὰ ταῦτα ἀπώλοντο.*

[3] Wilhelm Tomaschek, 'Die alten Thraker', *Sitzungsberichte der philos.-hist. Klasse der Kais. Akademie der Wissenschaften in Wien*, cxxvii. 4, 1893, p. 120; Vasile Pârvan, *Dacia*, pl. 14.

[4] Fr. Kauffmann, *Deutsche Altertumskunde*, i, p. 200 (pl. 19, 1).

[5] Cohen, l.c. i², Domitien, nos. 536–8; Mattingly–Sydenham, l.c. ii, Domitian, nos. 267, 295, 303, and 329; Mattingly, l.c. ii, Domitian, nos. 311 (pl. 71, 10) 351, 352 (pl. 73, 9), 357 (pl. 73, 12), 363 § (specimen of Vienna).

sacrifice with an attendance of foot-soldiers, cavalrymen, and musicians blowing the carnyx. The carnyx, as well as the 'Luren', as the Scandinavian rock engravings illustrate it for us, was, when blown upon, raised high in the air.

The question of the origin and dating of the Gundestrup kettle is still, it is true, despite the untiring study devoted to it,[1] obscure. Nevertheless, though the possibility of its having been imported

[1] Sophus Müller, 'Det store sølvkar fra Gundestrup i Jylland', *Nordiske Fortidsminder*, i, 1893, pp. 35–68; idem, *Nordische Altertumskunde*, ii, pp. 160 ff.; A. Bertrand, 'Le Vase d'argent de Gundestrup (Jutland)', *Revue archéologique*, IIIe Sér., xxi, 1893, i, pp. 283 ff.; A. Voss, 'Der große Silberkessel von Gundestrup in Jütland, ein mithräisches Denkmal im Norden', *Festschrift für Adolf Bastian*, Berlin, 1896, pp. 367–413; Camille Jullian, 'Notes gallo-romaines XXXVII. Le vase de Gundestrup', *Revue des études anciennes*, x, 1908, pp. 71 ff.; Gustaf Kossinna, 'Zur Wochengöttervase vom Fliegenberg bei Troisdorf, Siegkreis', *Mannus*, ii, 1910, pp. 203 ff.; Fr. Drexel, 'Über den Silberkessel von Gundestrup', *Jahrbuch des kais. deutschen archäolog. Instituts*, xxx, 1915, pp. 1–36; Hermann Schneider, 'Die Felszeichnungen von Bohuslän, das Grab von Kivic, die Goldhörner von Gallehus und der Silberkessel von Gundestrup als Denkmäler der vorgeschichtlichen Sonnenreligion', *Veröffentlichungen des Provinzialmuseums zu Halle*, i. 2, Halle (Saale), 1918, pp. 33 ff.; G. Girke, *Die Tracht der Germanen*, ii, p. 38 f.; H. Klumbach in his new (4th) edition of Schumacher's 'Germanendarstellungen' (see p. 160, n. 5) omitted the Gundestrup kettle without stating reasons, although he gave grounds for omitting other pieces; Sophus Müller, *Jernalderens Kunst i Danmark*, Kjøbenhavn, 1933, § 21 (inaccessible to me); F. Otto Schrader, 'Indische

into Jutland from abroad cannot be entirely excluded, its domestic, and therefore Germanic, origin seems to be more probable. In that case we must presume that it was made according to foreign, Gallic, models. But, just as it might have been produced from a foreign model by German hands, it is equally possible that the use of the carnyx also was introduced to the Germans from the outside.[1]

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In conclusion, I should like to make one more brief remark on one type of the coins with which we have dealt here and which was of such interest to us.

The type bearing piled arms and obviously representing the spoils carried in the triumphal procession was not introduced into Roman coinage for the first time by the Emperor Marcus Aurelius. As early as the reign of Trajan a very rare sestertius of this type was struck, which is so far only known from a single specimen, now in the Naples National Museum.[2] This coin, however, refers in all probability to Trajan's exploits in the war against the Parthians, not only on chronological grounds, but also because of the conspicuously accentuated quivers containing arrows among the piled arms. A medallion of the Emperor Hadrian, known so far also only from two or three specimens,[3] reveals the same type. Cohen sought to

Beziehungen eines nordischen Fundes', *Zeitschrift der deutschen morgenländischen Gesellschaft*, lxxxviii, N.F. xiii, 1934, pp. 185–93; Wilhelm A. von Jenny, *Keltische Metallarbeiten aus heidnischer und christlicher Zeit*, Berlin, 1935, p. 22 f.; Frederik Adama van Scheltema, *Die Kunst unserer Vorzeit*, Leipzig, 1936, p. 72.

[1] However, one may assume that it was taken over with an altered function. It is obvious that the medieval Irish croziers have the identical shape of the Gallic or British carnyx, the most striking analogies being the theriomorphic ending, comprising even the characteristic crest, and the articulation formed by means of protruding circles. Cf. Henry S. Crawford, 'A Descriptive List of Irish Shrines and Reliquaries II', *The Journal of the Royal Society of Antiquaries of Ireland*, liii, 1923, pp. 163 ff.; Adolf Mahr, *Christian Art in Ancient Ireland*, i, Dublin, 1932, pl. 27, 40, 71–7. The opinion that the function as a crozier is a secondary one seems to be supported by the fact that the crozier of St. Findchu was formerly used for swearing on and was carried before the army of Munster. The bronze trumpets found in great numbers in Ireland, by their shape, especially by the absence of the theriomorphic ending, approximate rather to the Roman *lituus* (see John Evans, 'L'Âge du bronze', *Instruments, armes et ornements de la Grande Bretagne et de l'Irlande*, Paris, 1882, pp. 385 ff.; George Coffey, *The Bronze Age in Ireland*, Dublin–London, 1913, pp. 85 ff., pl. x). The transition form between them and the carnyx, with the characteristic crest, is represented by the trumpet found in the river Witham, Lincolnshire (H. M. Kemble, *Horae ferales*, London, 1863, pl. xiii, 2; Fr. Behn, *Die Musik im römischen Heere*, p. 38, fig. 4*a*).

[2] P. L. Strack, *Untersuchungen zur römischen Reichsprägung*, i, no. 453 (pl. viii, 453). Cf. p. 226.

[3] Cohen, l.c. ii², Adrien, no. 469; Mattingly–Sydenham, l.c. ii, Hadrian, no. 643; P. L. Strack, *Untersuchungen*, ii, no. 443 (pl. xvi, 443).

explain the five trumpets depicted on it as Gallic; but that would necessitate our considering all the spoils represented thereon as Gallic, and that is hardly possible. For Gallia, at the time of Hadrian, had already long been part of the Roman Empire and our sources give no account of any revolt that might have taken place there—supposing that the suppression of it might have been celebrated in a manner reminding one almost of a triumph. Nor do our sources give us anything in the way of information about a war taking place on territories where Gallic stock might have participated on the side of the enemy.

It is surprising that Strack did not devote more attention to this reverse: it is only from a reference in his catalogue that we gather that he assigns it to a hypothetical expedition against the Scythians in the year A.D. 124/5. But another explanation is possible. The large hexagonal shields on the heap of arms depicted on the reverse of the medallion in question are exceptionally conspicuous, and, despite the bad preservation of the known specimens, one can clearly distinguish on them the characteristic carnyx. It is difficult indeed to assign them in the present case to the Gauls; it is equally tempting to class these instruments as German. If this were the case, it would be possible to link our medallion with the account in Hadrian's biography, of how that emperor appointed a king for the Germans,[1] and, in this case, it would now seem, after some successful war. Of course, since there is an absolute lack of other sources, it is not possible to regard this association as more than a mere possibility. Likewise, it is only by a process of deduction that we might—having regard to the presence of the carnyx among the spoils depicted on the medallion—sooner think of the success commemorated as achieved over the trans-Danubian Germans than over the trans-Rhenine ones.

[1] *Vita Hadriani*, 12, 8: 'Germanis regem constituit.'

'SAECVLVM NOVVM'

LE MILLÉNAIRE DE ROME ET LE 'TEMPLVM VRBIS' SUR LES MONNAIES DU IIIe SIÈCLE AP. J.-C.[1]

JEAN GAGÉ

(*Planche XIV*)

SAECVLVM NOVVM est une des formules les plus nettes de la phraséologie 'séculaire' de l'empire romain, si largement représentée dans la numismatique. En fait, lorsque cette légende apparaît sur les revers monétaires vers le milieu du IIIe siècle, elle se rapporte à une cérémonie séculaire très précise et très particulière : les fêtes du millénaire de Rome, célébrées en 248 ap. J.-C. par Philippe l'Arabe et son fils, exactement mille ans après la fondation de l'*Urbs* (en 753 av. J.-C., selon la tradition); et elle accompagne régulièrement l'image d'un temple qui joua évidemment un rôle dans cette célébration.

En quoi consistèrent ces 'jeux séculaires' — *saeculares Augg.*, comme les appellent officiellement d'autres monnaies ? Et quel fut ce temple ? Les érudits modernes ne se sont pas montrés très préoccupés de le savoir. Ils ont pour la plupart admis plus ou moins explicitement que, si les jeux du millénaire s'étaient distingués des *ludi saeculares* proprement dits — tels que nous connaissons ceux d'Auguste et de Septime Sévère par les *Acta* épigraphiques, et ceux de Domitien précisément par les revers monétaires — par le principe de leur comput, lié à la destinée historique de l'*Urbs*, et par la durée même du siècle qui lui sert de base (100 ans, et non les 110 ans du *saeculum* rituel), ils en avaient du moins respecté l'ordonnance, et sans doute la liturgie. Certains, comme Wissowa, ont réservé la question du rituel comme insoluble. Presque tous, d'ailleurs, frappés par l'importance que textes et monnaies (voir les animaux des revers de Philippe) paraissent accorder aux purs *spectacles* (chasses, courses au cirque, jeux théâtraux, etc.), ont réduit au minimum la signification proprement *religieuse* de la cérémonie, qui aurait été avant tout une commémoration, un 'jubilé' (cf. en dernier lieu E. Diehl, dans le *Rhein. Mus. f. Phil.* 1934, pp. 370–2).

[1] Le présent article ne reprend qu'une partie de la communication présentée par l'auteur au Congrès ; il a paru préférable, pour le reste, et même pour le développement des idées ci-après, de renvoyer le lecteur, d'une part à nos *Recherches sur les jeux séculaires* (Paris, 1934), pp. 89–103, d'autre part à notre mémoire des *Mélanges Franz Cumont* sur 'Le *Templum Urbis* et les origines de l'idée de *Renovatio*' (à paraître à Bruxelles en 1936 ; sous presse au moment où nous écrivons).

Or, les revers monétaires à la légende *saeculum novum*, frappés en grand nombre en 248 même par les deux Philippes (Cohen, v, pp. 114–15, 139 et 170), et isolément par plusieurs de leurs successeurs immédiats vers 250–3 — par Décius sous le nom d'Herennia Etruscilla (ibid., p. 211, nos. 28–9), par Hostilianus (ibid., p. 231, nos. 53–4), par Trebonianus Gallus (ibid., p. 251, nos. 110–11) et par Volusianus (ibid., p. 277, nos. 115–16), Pl. XIV, 6–11 — sont capables de répondre à la fois à ces deux questions. L'expression même dit assez clairement que, loin de n'être qu'une célébration de sens rétrospectif, la fête de 248 fut aussi tournée vers l'avenir, avec l'espoir officiellement proclamé d'ouvrir un *nouvel* âge — probablement un nouveau 'siècle de mille ans', *miliarium saeculum*, suivant une autre légende caractéristique des monnaies de Philippe. D'autre part, la représentation systématique d'un temple, devant lequel se profile parfois une scène formelle de sacrifice, suffirait à détruire la légende, tardive (IV–Ve siècles) et d'origine chrétienne, d'après laquelle la fête n'aurait donné lieu à aucune immolation de victime (Orose, vii. 20). Quel que fût leur rapport avec les vrais jeux séculaires, les jeux de 248 furent avant tout, comme eux, des rites religieux destinés à inaugurer un nouveau *saeculum*. Il reste à déterminer, s'il est possible, le principe de leur rituel, les cultes qu'il mit en œuvre, les divinités auxquelles il s'adressa. Les textes sont à cet égard fort peu explicites; ils permettent du moins de conjecturer avec une quasi certitude que le 'nœud' de la fête fut le *natalis Urbis* du 21 avril, anniversaire fondamental célébré chaque année depuis Hadrien par de solennels jeux de cirque. Ils ne donnent par ailleurs aucune raison de penser que l'on ait suivi pour le reste le rituel des quindécemvirs s.f., avec les sacrifices nocturnes au Tarentum et les sacrifices diurnes au Capitole et au Palatin; seule l'allusion aux jeux théâtraux qui se donnèrent au Champ de Mars 'durant trois jours et trois nuits' (Cassiodore) peut éveiller un instant le souvenir du *triduum* rituel des *ludi saeculares*; encore s'agit-il d'une ressemblance tout extérieure, et qui peut s'expliquer par le désir de copier le rituel canonique par quelque détail voyant.

Le temple qui figure sur les revers à la légende *saeculum novum* apparaît sous deux aspects de prime abord assez différents: tantôt — c'est le cas pour une série de monnaies des Philippes, et pour *toutes* les monnaies des empereurs ultérieurs — il est représenté seul dans le 'champ' monétaire, suivant un dessin assez simplifié (p. ex. fronton nu): c'est alors un temple de façade assez large par rapport à la hauteur, à 6 ou 8 colonnes selon les cas, dressé au-dessus de quelques gradins; au milieu apparaît une figure assise, tenant dans sa main

gauche un long sceptre, dans la droite un objet qui, sur les exemplaires les plus nets, semble bien être une Victoire. Tantôt — c'est le cas pour les autres revers des Philippes (Cohen, v, p. 139, n° 14, et p. 170, n° 82; cf. W. Froehner, *Médaillons romains*, pp. 196–7) — le temple est représenté plus grand, avec des détails relativement précis (décor du fronton, du sommet), servant de fond à une scène de sacrifice où l'on voit l'empereur et son fils, voilés, se faisant face, étendant la main vers un autel derrière lequel on distingue la silhouette d'un joueur de flûte (?) représenté de face; derrière chaque empereur un personnage, d'aspect militaire, tient sur son épaule un objet allongé où Cohen reconnaissait une 'haste recourbée', mais qui est tout simplement une *palme*. Scène de sacrifice séculaire, assurément, mais conforme à un type iconographique alors presque canonique, qu'on reconnaît sur des revers monétaires sans rapport avec la célébration de 248: l'opposition symétrique des deux empereurs-sacrificateurs, la représentation au milieu et au second plan d'une troisième figure, répondent exactement au schéma trinitaire des scènes dites de 'Concorde', le joueur de flûte ayant pris en la circonstance la place d'ordinaire occupée par la figure allégorique de *Concordia* elle-même, ou de *Pietas*.[1] On notera d'ailleurs que les représentations les plus caractéristiques de ce type, au début du IIIe siècle déjà, se trouvent en fait rattachées à l'iconographie séculaire, puisque ce sont les revers des Sévères, qui commémorent les *sacra saecularia* de 204.[2]

Avons-nous affaire, sous la légende *saeculum novum*, à plusieurs temples, ou à un seul représenté avec des variantes? *A priori*, on ne peut guère hésiter à répondre: le même; le fin connaisseur qu'était W. Froehner n'en a pas douté: 'le nombre des colonnes est tantôt de six, tantôt de huit, écrit-il, *et cependant la scène se passe en face d'un seul et même sanctuaire*. C'est que les artistes anciens . . . font bon marché de ces menus détails qui n'avaient pour leurs

[1] Cf. les observations de M. A. Grabar, *L'Empereur dans l'art byzantin*, Paris–Strasbourg, 1936, p. 218.

[2] Cohen, iv, p. 59, n°. 560, etc.; Mattingly–Sydenham, *The Rom. Imper. Coinage*, iv. 1 (1936), p. 127, n° 293; p. 202, n° 816, etc. Cohen, dans la figure du milieu, a reconnu la Piété (?); MM. Mattingly et Sydenham pensent aussi à la Piété, ou plutôt à la Concorde (?). L'illusion est singulière: cette figure centrale, que l'on voit de face, semble bien barbue (comme la décrit Cohen), et, par son geste vers l'autel comme par son costume, paraît toute semblable aux deux figures qu'elle sépare; n'est-il pas plus vraisemblable que nous soyons en présence de la *triade* impériale des Sévères (Septime Sévère occupant en l'espèce la place du milieu), telle que les *Acta* épigraphiques nous la montrent dirigeant les rites, telle aussi que la représente, suivant un schéma particulièrement caractéristique, certain bas-relief de l'arc de Leptis Magna (Bartoccini, *Afr. Ital.* 1931, p. 116 et fig. 81; cf. Gagé, *Mél. d'arch. et d'hist.* li, 1934, p. 34 et n. 2)? L'équivoque est d'ailleurs en elle-même fort significative.

contemporains qu'une valeur secondaire. Mais les ornements des deux frontons ne paraissent pas différer entre eux. . . .' Il est vrai que Froehner ne parle ici que des revers représentant le sacrifice. Faut-il étendre sa conclusion à ceux où le temple figure seul? Nous croyons qu'il le faut, et plus nécessairement encore, car d'une part ce temple, dans son dessin schématique, est manifestement toujours le même d'une monnaie à l'autre; d'autre part, et surtout, il serait difficilement concevable que, pour donner à une unique légende l'accompagnement symbolique d'une image, on ait eu recours à des modèles différents, c'est-à-dire, en la circonstance, à des temples de dieux différents. Liée à l'idée du 'nouveau siècle', il est nécessaire que cette image ait été pour les contemporains celle du temple entre tous associé à la célébration du millénaire: temple de quelle divinité?

La réponse, ici, n'est ni difficile, ni douteuse: dans la figure divine assise au milieu du temple, entre deux des colonnes, Cohen lui-même, pourtant égaré sur de fausses pistes, a reconnu ça et là la déesse Rome; et il est difficile de comprendre pourquoi, devant des représentations manifestement tout identiques, il a songé plutôt à Jupiter (?), voire à Juno Martialis, dont le sanctuaire, pourtant, sur les revers contemporains de Trebonianus Gallus et de Volusianus, affecte la forme toute différente d'une rotonde à coupole. Le temple du *saeculum novum* est donc le temple de Rome, c'est-à-dire nécessairement le temple de *Roma aeterna*, moitié principale, si j'ose dire, du double sanctuaire construit au siècle précédent par Hadrien, sur la Vélia, en l'honneur de Rome et Vénus associées, et couramment appelé sous le Bas-Empire *templum Urbis*, entendez temple dédié à l'*Urbs* divinisée. Et la confirmation, en effet, nous est facilement offerte par la comparaison des revers en question avec ceux de Septime Sévère ou de Probus (Pl. XIV, 12), au IIIe siècle aussi, qui représentent le même temple sous la légende péremptoire *Romae aeternae*, voire même avec ceux de Maxence (et de son père Maximien), au début du IVe siècle, qui le figurent encore sous une légende à peine moins transparente (*conservator urbis suae*). Le *templum Urbis* a décidément été, pour les Romains du IIIe siècle, au lendemain des fêtes de 248, le temple du 'nouveau siècle'; il n'a pu prendre cette valeur symbolique que s'il a été, dans ces fêtes, sinon l'unique foyer, du moins le foyer principal des rites du millénaire.

Revenons maintenant aux représentations du temple avec le sacrifice. Que les variantes dans le nombre des colonnes soient dépourvues de signification, les revers monétaires de Sévère-Alexandre le prouvent, qui représentent en 228 ap. J.-C. — une centaine d'années après la fondation du temple: est-ce un hasard? — un sacrifice tout

semblable à *Roma aeterna* (Pl. XIV, 4):[1] or le temple, cette fois, est réduit à quatre colonnes (Cohen, iv, p. 455, n° 526, et p. 435, n° 361; cf. Froehner, *Méd. rom.*, pp. 170–1), sinon à deux, entre lesquelles apparaît, très haut, la déesse assise. En fait, nous savons par l'examen des ruines et d'abord par les premières représentations monétaires, les plus fidèles de toutes, frappées au lendemain même de l'inauguration, sous Hadrien et sous Antonin (ap. J.-C. 137 à 139), que le temple de *Roma aeterna*, comme celui de Vénus qui lui faisait pendant, était décastyle (Pl. XIV, 1–3). Les variations que l'on observe dans ses représentations postérieures ne sont donc qu'une preuve de plus, particulièrement frappante, de la liberté dont usaient en pareil cas les graveurs monétaires romains; toutefois, s'il est une image conventionnelle du temple couramment acceptée, c'est bien celle qui le figure, de Septime-Sévère à Probus, pourvu de six colonnes et orné de la statue assise de Rome en son milieu. D'ailleurs, en ce qui concerne les revers au type du sacrifice, leur comparaison avec ces mêmes monnaies d'Hadrien et d'Antonin apporte des raisons nouvelles d'affirmer l'identité du temple. Nous préférons ne pas tirer argument du fronton, où l'on distingue toujours 'une figure debout entre deux figures couchées', parce que ce schéma triangulaire est, par nécessité, très fréquent dans les figurations de temple. En revanche l'ornement du faîte paraît présenter les mêmes singularités; il ne semble pas que ce soit un quadrige; on croit plutôt distinguer un groupe fait de trois personnages, celui du milieu paraissant en quelque sorte porté par les deux autres. 'Le groupe placé au sommet de l'édifice, dit Froehner pour les revers des Philippes, représente un dieu appuyé sur deux autres divinités, comme le Jupiter des *Fanti scritti* de Carrare (Pl. XIV, 5).' Pas plus que Froehner, je ne me risquerai à proposer une explication d'un tel groupe; il est seulement digne de remarque que la seule figuration monétaire que l'on en puisse rapprocher soit celle qui exprime allégoriquement, sur un médaillon attribué à Constantin, le thème de la *Securitas Romae* (Froehner, p. 289 et fig. de la p. 286: 'deux femmes dont l'une armée d'un flambeau, promènent triomphalement une troisième figure, casquée (?) et tenant un sceptre à la main. . . . Je pense que la figure qu'elles portent sur

[1] Le revers à la légende *Romae aeternae* est identique en effet, pour l'image, à un revers pourvu seulement d'une titulature impériale, laquelle assure la date de 228. Or l'opinion a été longtemps partagée que l'inauguration du *templum Urbis* par Hadrien avait eu lieu en 128, année où l'empereur se trouva quelques mois à Rome, et prit officiellement le titre de *pater patriae*. Quoique les recherches les plus récentes de la numismatique recommandent en fait une date plus tardive (136–7; cf. P. Strack, *Untersuch. z. röm. Reichsprägung, II. Hadrian*, 1933, p. 175; H. Mattingly, *Coins of the Rom. Emp. in the Brit. Mus.* iii (1936), p. cxlv), cette coïncidence nous paraît mériter réflexion.

leurs bras est la déesse Roma . . .'). Il est probable, en effet, étant donné le sujet, que la figure centrale est Rome; il est vraisemblable aussi que c'est un 'triomphe de Rome' qui figurait au sommet du *templum Urbis*, dans la même position peu banale.[1]

Veut-on une dernière confirmation? Elle vient de nous être offerte, de façon assez inattendue, par une mosaïque chrétienne du ve siècle, à Ste Marie-Majeure de Rome, étudiée de près par M. André Grabar: là, sur le registre supérieur de l''arc triomphal', côté droit, un temple (à quatre colonnes) figure dans la scène de la Purification de la Vierge: c'est le temple de la Présentation, donc le Temple de Jérusalem; mais en fait le fronton est occupé tout entier par une image fort distincte de la déesse Rome, assise en majesté suivant le type depuis longtemps canonique (Fig. 1). Pourquoi le temple de *Roma* — car, si schématique, si inexacte que soit cette dernière image, elle n'est pas contestable — a-t-il pris sur la mosaïque la place du Temple de Jérusalem, sinon parce que, dans cette scène évangélique où la prophétesse Anne annonce en Jésus la *redemptio saeculi* (!), l'artiste romain a évoqué, spontanément ou dans un dessein subtil, le grand temple qui avait été par excellence, à Rome, celui du *saeculum novum*, avec d'autant moins de scrupules, d'ailleurs, que de son temps (vers 430–40) la légende de Philippe empereur chrétien s'était accréditée, et que la fête du millénaire, en particulier, passait pour avoir été vouée par cet empereur 'au Christ et à l'Eglise'! (Orose, vii. 20.)[2]

L'identification de ce temple sur les monnaies du IIIe siècle a pour première conséquence d'éclairer le rituel qui fut suivi en 248: si les 'jeux' du millénaire, que nous avions déjà pu dater du jour du *natalis Urbis*, ont comporté comme rite essentiel un sacrifice solennel à *Roma aeterna* devant le *templum Urbis*, force est bien de conclure définitivement qu'ils ne furent point identiques aux *ludi saeculares* authentiques, lesquels ignorèrent toujours la déesse Roma, d'ailleurs née après eux (comme *déesse*); qu'au contraire, suivant probablement l'exemple des pseudo-jeux séculaires d'Antonin le Pieux en 148 (et non 147),[3] ils furent essentiellement un rite, démesurément élargi, du culte de la déesse Rome, fondé sur la croyance, devenue officielle, à son *éternité*. De là aussi l'hommage empressé d'un 'usurpateur' contemporain, Marinus Pacatianus, 'à *Roma aeterna*, en sa mille-et-unième année' (Cohen, v, p. 182; 248–9 ap. J.-C.), ou telle repré-

[1] Ou bien s'agit-il d'une figure (Rome) assise sur un *trône*, dont les montants donneraient sur nos exemplaires l'illusion de deux figures debout? Le quadrige en tout cas nous paraît exclu. Et l'important est ici l'analogie assez frappante entre les représentations d'Antonin et celles des Philippes.

[2] Cf. Grabar, op. cit., p. 216 et suiv.

[3] Voir nos *Recherches*, pp. 98–103.

sentation de Rome tenant un globe *surmonté d'un phénix* sur un revers d'Aemilianus (ibid., p. 291, n° 41; 253–4 ap. J.-C.). Le 'nouveau siècle' ne sera pas seulement, *historiquement*, celui de Rome, entrée

Le temple de *Roma* sur la mosaïque de Ste Marie-Majeure (d'après Wilpert, *Röm. Mosaiken*).

FIG. 1.

dans un second millénaire; il est promis à son 'éternité', et en quelque sorte cautionné *religieusement* par elle.

Mais cette conclusion elle-même nous conduit à une meilleure compréhension de tout un ordre de représentations ou de légendes monétaires du IIe et du IIIe siècle. La rencontre parfaite que les monnaies au thème du *saeculum novum* révèlent, à l'occasion du jubilé de 248, entre les spéculations 'séculaires' en général et la religion de *Roma aeterna* n'est en effet ni fortuite ni soudaine; elle a été préparée

pendant un siècle par le parallélisme de plus en plus étroit qu'on observe dès la fondation du *templum Urbis*, sous Hadrien, entre les thèmes du *saeculum aureum* et les thèmes de *Roma felix*.[1] La célébration de 248, dont l'écho a été prolongé, a resserré définitivement ces liens subtils; c'est ainsi que se développera vers la fin du IIIe siècle, dans le cadre de la même religion, le thème de la *renovatio Romanorum*, et que Maxence, au début du IVe, continuera d'appuyer sur le culte du *templum Urbis* son évangile national romain (Pl. XIV, 13). Ces associations d'images et d'idées survivront même au paganisme; et, de même que la signification symbolique du *templum Urbis* s'est trouvée transposée au Ve siècle par un mosaïste chrétien au profit de sa foi, tout le cortège des rêves de l'âge d'or continuera au Moyen Âge d'accompagner l'idée de la *Roma aurea*.[2]

[1] Ce parallélisme a été bien souligné par P. Strack, op. cit., passim; cf. aussi Mattingly, *Coins of the Rom. Emp.* iii, pp. cxxxiii et cxlviii ('Hadrian . . . defines his age as a new age of gold, associated with a special cult of Roma'); et Mattingly–Sydenham, *Rom. Imp. Coinage*, iv. 1, p. 21, à propos des monnaies de Pescennius Niger ('To the thought of the golden age is linked that of the Eternal Roma and the Eternity of the Empire'); ibid., p. 42 (Sept. Sév.), etc.

[2] Voir, sur tous ces développements, notre mémoire des *Mélanges Cumont*.

NOTE SUR UN CONTORNIATE INÉDIT

P. LE GENTILHOMME

UN médaillon inédit vient s'ajouter aux rares exemples de contorniates trouvés sur le sol de France.[1] Il est entré cette année au Cabinet des médailles, grâce au désintéressement de M. Léon Massiou, membre de la Commission des arts et monuments de la Charente-Inférieure. C'est dans ce département que cette pièce fut découverte, il y a environ cinq ans, à proximité du village de Toulon (faussement dénommé *Novioregium* sur la carte du pays des Santons dressée par La Sauvagerie) à quelques centaines de mètres du camp dit de César. Le paysan qui la recueillit, la remuait depuis plusieurs années en labourant sans y attacher plus d'importance qu'aux autres fragments de marbres, de tuiles, de pâtes de verre ou de cubes de mosaïque ramenés si souvent à fleur de terre par le soc de la charrue. En effet, les contours du médaillon ménagent, sur chaque face de la pièce, une sorte de cuvette où viennent s'inscrire, en creux, les types et les légendes; cette double cavité se trouve facilement comblée par la terre qui masque ainsi l'aspect monétiforme de l'objet. Ces contorniates, à types et légendes incus, sont d'ailleurs assez rares; nous ne pouvons citer comme appartenant à cette série que ceux du cocher *Astur* et du cheval *Botrocales* à Paris[2] et dans l'ancienne collection de feu le Dr. Gaby,[3] celui du cocher *Cosmus* et du cheval *Seracusus*, à Vienne,[4] et, enfin, celui du cheval *Seleucus*, à Londres.[5]

Voici la description du contorniate de Toulon:

Obv. MAKARI MVSA. Aulète revêtu d'une longue tunique garnie sur le devant d'une bande verticale ornée de motifs circulaires; la tunique est serrée à la taille par une ceinture et un grand manteau tombe des épaules; de la main droite, l'aulète tient un chalumeau muni de quatre clefs, à l'extrémité légèrement incurvée ou cornue (*αὐλὸς κεραστής*) et de la main gauche, un chalumeau droit, plus court et muni de trois clefs.

R. TORAX NIKA. Aurige dont la casaque courte est passée

[1] Charles Robert, dans son étude, remarquable pour l'époque, sur les médaillons contorniates, publiée dans la *Revue belge de numismatique* en 1882, cite le cas d'un contorniate du cocher *Astur* trouvé à Beauregard dans l'Isère.

[2] Sabatier, *Description générale des médaillons contorniates*, Paris, 1860, in-4°, p. 41, pl. iv, fig. 13.

[3] Robert (P. Charles), *Étude sur les médaillons contorniates*, op. cit., p. 57, pl. iv, fig. 1 du tirage à part.

[4] Sabatier, op. cit., p. 49, pl. vii, n°. 7.

[5] Sabatier, op. cit., p. 43, pl. v, n°. 11.

sur une tunique à manches collantes et des braies également collantes; il est ceint de courroies entrelacées jusqu'aux aisselles; la tête coiffée de la casquette en forme de casque (*κασσίδιον*), il tient de la main droite un fouet et de la gauche, une palme. Le personnage est flanqué de deux vases ornés de palmes.

Bronze, 38 mm., types et légendes incus.[1]

Ce type d'aulète, qui pour la première fois apparaît sur un contorniate, présente le plus grand intérêt. L'acclamation MAKARI MVSA (*Felix Musa*) s'applique à un aulète du nom de Musa et non à la muse Euterpe qui devait inspirer son chant. La haute coiffure du personnage nous laisse supposer qu'il portait un masque et peut-être notre aulète apparaissait-il au public comme l'incarnation même de la déesse. D'ailleurs nous possédons parmi les céramiques à reliefs d'applique de la vallée du Rhône, datées du IIIe siècle, l'image d'un citharède que ses auditeurs acclament, NICA APOLLO.[2]

[1] Pour faciliter l'étude du style de ce médaillon, nous en donnons la reproduction accompagnée de celle de son empreinte en relief.

[2] Déchelette, *Les Vases céramiques ornés de la Gaule romaine*, Paris, 1904, in-4°, tome. ii, p. 293.

Si un citharède avait pour nom de théâtre *Apollo*, rien d'étonnant à ce qu'un joueur de flûte eût choisi ou reçu le nom de *Musa*.

Cet aulète a en mains la flûte phrygienne aux chalumeaux de longueurs inégales (*ἄνισοι αὐλοί*). Le tuyau cornu, le plus long, était généralement tenu de la main gauche (*tibia sinistra*), tandis que le plus court était tenu dans la main droite (*tibia dextera*). Or le contorniate présente une disposition contraire et nous n'avons pas de raison de taxer le graveur d'inexactitude puisque, au revers, le cocher tient correctement son fouet de la main droite et une palme de la gauche.

Si l'image d'un aulète, au droit du contorniate de Toulon, répond à celle d'un cocher de cirque sur le revers, il n'y a là qu'un rapprochement tout à fait naturel pour les anciens. La double flûte, et surtout la flûte phrygienne, convenait particulièrement aux jeux du cirque, placés généralement sous la protection de la grande déesse phrygienne, Cybèle, dont l'image figurait le plus souvent sur la *Spina* du cirque. Une inscription de Nicée,[1] par exemple, nous apprend que c'est au son des trompettes et des doubles flûtes que se donnait le signal du combat des gladiateurs. Les doubles flûtes phrygiennes se faisaient aussi entendre lors des pompes dionysiaques du cirque dont les contorniates fournissent d'ailleurs de fréquentes illustrations.

Mais les aulètes jouaient parfois un rôle de premier plan et participaient à des concours dont les vainqueurs étaient célébrés sur les objets les plus familiers. Une lampe de la collection Froehner représente ainsi un aulète accosté de deux palmes; l'inscription STEPHANON, à ses pieds, rappelle la couronne qu'il a obtenue et qui se trouve figurée au-dessus de sa tête. Parmi les verres à figures dorées, recueillis dans les catacombes romaines, il en est un du début du IVe siècle, conservé dans la collection du Vatican. Son intérêt n'avait pas échappé à l'œil exercé de Raoul Rochette.[2] Le costume de l'aulète, dont l'image domine la composition, rappelle tout à fait celui de notre contorniate, de fabrique sans doute contemporaine; son masque tragique est posé: à sa gauche, sur une colonne où se lit l'inscription ILIA CAPITOLIA, à sa droite, sur un cippe, cinq couronnes sont posées l'une sur l'autre.

La légende INVICTA ROMA ILIORVM[3] vient confirmer qu'il s'agit d'un aulète, vainqueur aux jeux capitolins, fondés par Domitien

[1] *Inscr. gr. ad res Rom. pert.* tome iii, p. 43.

[2] Rochette (Raoul), *3e Mémoire sur les antiquités chrétiennes des Catacombes. Mem. Ac. Inscr.* tome xiii, année 1838, p. 777 (simple mention); Garucci (le P.), *Vetri ornati di figure in oro*, Rome, 1858, in-folio, p. 65, pl. xxxiv, fig. 1.

[3] La légende légèrement corrompue, porte en réalité INVICTA ROM[A] ILIOROR.

et surnommés ensuite jeux iliens, à l'instar des grands jeux qui, d'après Strabon et Eustache, se célébraient à Ilion. Les jeux capitolins et les jeux célébrés à Ilion avaient un caractère commun; comme l'a fait ressortir le P. Garrucci, tous deux dérivaient des Panathénées. Ce caractère commun incita peut-être les Romains, soucieux d'affirmer leur généalogie troyenne, à nommer iliens les jeux capitolins. Ceux-ci, d'après Suétone, comportaient trois sortes d'épreuves: musicales, équestres et gymniques. Sur le verre doré du Vatican, comme sur notre contorniate, l'aulète nous apparaît comme le vivant symbole du concours musical.

Il est facile de vérifier maintenant que l'aulète du contorniate porte le masque que vient de déposer l'aulète vainqueur des jeux iliens, figuré sur le verre du Vatican; seulement sur le contorniate l'*oncos* s'élève nettement au-dessus du front. Les deux documents se complètent et s'éclairent l'un l'autre. Le lustre des jeux capitolins ou iliens, célébrés tous les cinq ans à Rome, était tel qu'il se peut que notre contorniate représente précisément un aulète favori de la foule, qui prit part aux jeux iliens.

Quant au type de l'aurige, il est commun et paraît ne mériter aucun commentaire. Et cependant la bonne fortune du Cabinet des Médailles veut que nous possédions un autre contorniate, d'une fabrique grossière, où les types sont gravés à la pointe et incrustés d'argent. Sur cette pièce nous retrouvons au droit le cocher TORAX et au revers l'aurige SIMPLICIVS dans un quadrige dont le cheval de gauche, le *funalis*, porte le nom de POLISTEFANVS, connu d'ailleurs par d'autres contorniates. Alors que le contorniate de Toulon ne nous paraît pas postérieur au premier quart du IVe siècle, le contorniate de *Torax* et de *Simplicius* semble appartenir à la seconde moitié du même siècle comme l'indiquent sa fabrique, son style et en particulier le canon allongé des figures. Mais la gloire du nom de l'aurige *Torax* ne nous est pas seulement attestée par deux médaillons; en effet, sur un monument d'une importance considérable pour l'histoire des jeux du cirque, la mosaïque espagnole de Girone,[1] attribuée au temps des Sévère ou pour le moins à une date antérieure à 250 ap. J.-C., figure le cocher *Torax* parmi les auriges

[1] Laurière (S. de), 'La Mosaïque romaine de Girone', *Bull. mon.* 1887, pp. 235–251, fig. Cf. *C.I.L.* tome 2, *Inscr. d'Espagne*, p. 987, nº. 6180.

qui disputent la course; il porte la casaque rouge, couleur du soleil levant (ἀνατέλλων), et retient les chevaux d'un quadrige dont le *funalis* s'appelle *Polistefanus* comme celui du contorniate de *Torax* et *Simplicius*. Au-dessus des *carceres*, de chaque côté de la tribune du président des jeux, la mosaïque de Girone est ornée de deux groupes évoquant les origines fabuleuses de Rome. A gauche, Mars, la louve et les jumeaux; à droite, Mars et Rhéa Sylvia ou plutôt Mars et Ilia, ainsi qu'il convient de les appeler d'après les vases à reliefs d'applique de la vallée du Rhône, de fabrique contemporaine. Les sujets figurés sur toute cette céramique se rapportent presque tous, comme ceux des contorniates, au théâtre et au cirque. Ilia, ainsi honorée dans les cirques, n'est-elle pas en rapport avec ces jeux iliens ou capitolins dont nous venons de parler? Sans doute la déesse en l'honneur de qui se célébraient les panathénées d'Ilion n'est pas Ilia mais Athéna Ilias. Or précisément, la statue d'Athéna se dresse sur la partie droite de la *spina* du cirque de la mosaïque de Girone, à la place d'honneur, face au président des jeux. Athéna, d'ailleurs, figure souvent sur les contorniates. Ce rapprochement d'Ilia, fille d'Énée, mère de Romulus et Rémus, avec la déesse protectrice d'Ilion dont l'image sauvée par Énée devint le palladium des Romains et le rapport probable des deux déesses avec les jeux iliens,[1] demanderaient à être mis en lumière; malheureusement les documents font défaut jusqu'à présent et ne permettent pas de déterminer nettement la nature du lien qui semble les unir.

Est-il possible de fixer le temps des triomphes de l'aurige *Torax*? Trois documents, tous de date différente, mentionnent son nom. La gloire même du hiéronique ferait difficilement admettre que ce nom eût pu se transmettre de génération en génération d'auriges; de même, pour les chevaux dont les noms out dû souvent se transmettre, il est douteux qu'il y ait eu plusieurs *Polistefanus*, par exemple, capables de se succéder dans cette faveur du public qui allait jusqu'à reproduire sur les objets familiers leur image et leur nom.

Morin Jean dans son étude sur la verrerie en Gaule sous l'empire romain a justement remarqué que les gladiateurs *Proculus*, *Spiculus* et *Columbus*, cités par Suétone au temps de Caligula et de Néron, figuraient sur des bols qui pouvaient avoir été fabriqués après leur mort mais néanmoins à une époque où le souvenir de leurs exploits

[1] Sur un relief de terre cuite du musée de Vienne (Autriche), représentant une course de chars, Hübner a lu III. ILIAE, inscription qu'il a renoncé à expliquer. Si cette lecture est correcte, nous proposons d'y voir une nouvelle mention des jeux iliens. Cf. E. Hübner, 'Musaico di Barcelona raffiguranti giuochi circensi', *Annali dell' Instituto*, Rome, 1863, p. 142.

était encore très vivace. Il en est de même de tous les hiéroniques dont on peut lire les noms sur les mosaïques, les contorniates, etc. Les représentations figurant sur les contorniates sont dès lors aussi inactuelles que les portraits des jeux de cartes. D'ailleurs si des statues pouvaient être élevées aux hiéroniques de leur vivant, il semble contraire à toutes les habitudes antiques que leur effigie ait pu être imprimée sur les contorniates dont le caractère monétiforme devait apparaître aux anciens comme à nous-mêmes.

Il convient donc de renoncer, pour l'instant, à déterminer l'époque à laquelle vécut *Torax*; la mosaïque de Girone pourrait le faire contemporain des Sévère mais rien ne s'oppose à ce que l'aurige *Torax* de même que l'aulète *Musa* aient triomphé au temps de Domitien ou de Trajan. Seul un texte, littéraire ou épigraphique, pourrait nous fixer.

BYZANTINE STUDIES

HUGH GOODACRE

IT is now twenty-eight years since Wroth compiled his famous catalogue of the Byzantine coins in the British Museum, but surprisingly little has been added in this country to the study of this series since then. On the Continent, however, it has been otherwise, and, had it not been for the revolution in his country, Count Jean Tolstoi might well by now have completed his great work and furnished numismatists with a Corpus of the Byzantine coinage. As it is, we are left with but a noble fragment, and must console ourselves as best we can with the reflection that, the text being in Russian, that part of the work would have been to most of us a sealed book. Italy has produced several scholarly students, notably Signor Tommaso Bertelè, and Germany and France have contributed their quota, but England seems to have been content to rest on the laurels of Wroth. And yet there is no branch of numismatics which offers a wider, or richer, field for research than the Byzantine coinage.

The following paper only purports to deal with two side-issues which have come under my own observation.

The first concerns that interesting series of solidi of the Emperor Arcadius issued by the imperial mint at Constantinople, having on the reverse the legend CONCORDIA AVGG, AVGGG, or AVGGGG, the number of Gs indicating the number of Augusti at the time of issue.

The following résumé may be helpful to a better appreciation of the significance of these solidi than has hitherto been accorded them. They divide themselves primarily into two periods, the first covering the time during which Arcadius reigned in conjunction with other co-emperors; the second that during which he reigned as supreme ruler of the East. The coins of these two periods are readily distinguished by the representation of the imperial bust; in the former the Augustus is represented in profile wearing the diadem, while in the latter he is represented facing, in military attire, with helmet, shield, and spear.

Period I extends from the 19th of January A.D. 383, when Arcadius was raised by his father to the rank of Augustus, to the 17th of January 395, when he succeeded Theodosius I as Emperor of the East. Period II covers the time from this last date to the death of Arcadius on the 1st of May 408.

It is with Period I that I am mainly concerned here, and this may be sub-divided into the following six sub-periods:

(*a*) From the 19th of January 383, when Arcadius became Augustus, to the death of the co-emperor Gratian on the 25th of August of the same year. During this sub-period there were four Augusti, viz. Gratian, Valentinian II, Theodosius I, and Arcadius, who was then six years of age.

(*b*) From the 25th of August 383 until the recognition of the rebel Magnus Maximus as a co-emperor. History does not enable us to fix this date with absolute precision. During this sub-period there were three Augusti, viz. Valentinian II, Theodosius I, and Arcadius, who, as we have seen, was six years old.

(*c*) From the recognition of Magnus Maximus to his death on the 27th or 28th of August 388. During this sub-period there were four Augusti, and at its close Arcadius would have been about eleven.

(*d*) From the 27th or the 28th of August 388 to the death of Valentinian II, on the 15th of May 392. The three Augusti during this sub-period were Valentinian II, Theodosius I, and Arcadius, whose age would have ranged from eleven to fifteen.

(*e*) From the 15th of May 392 to the creation of Honorius as Augustus on the 10th of January 393. During this sub-period there were only two Augusti, Theodosius I and Arcadius, whose age would have been between fifteen and sixteen.

(*f*) From the 10th of January 393 to the death of Theodosius I, 17th of January 395. During this last sub-period there were three Augusti, viz. Theodosius I, Arcadius, and Honorius, and Arcadius would have been from sixteen to eighteen years of age.

Turning now to the coins we are considering, we find they present us with at least five distinct portraits of the Emperor Arcadius from childhood upwards. As the British Museum Catalogue does not commence until the reign of Anastasius, I propose to refer to the illustrations in Tolstoi's *Monnaies byzantines*, and to those in the catalogue of the sale of M. Ratto's great collection, which is probably in the hands of all collectors of Byzantine coins. Both of these works have now superseded Sabatier's *Description générale des monnaies byzantines*, at any rate as far as illustrations are concerned.

If we look at sub-period (*a*) it is clear that its requirements are a child-bust and four Gs. This we have in Tolstoi's Pl. I, Fig. 16, and Ratto's Pl. I, Fig. 1. But the note which M. Ratto has appended to his lot 1 is somewhat misleading, for it seems to imply that the

four Gs are restricted to this sub-period, which is not the case. Curiously enough, M. Ratto himself, in his Fig. 5, gives an example of a solidus with an older bust and four Gs, which he has misread as three.

Tolstoi's Pl. I, Figs. 18 and 20, and Ratto's Pl. I, Figs. 2, 3, and 4, illustrate sub-period (*b*). Ratto's Fig. 4 is of exceptional interest, for not merely does it appear to be an intermediate type between the child and the youth busts, but it has some slight bearing on the date of the recognition of Magnus Maximus.

A space of almost exactly five years intervenes between the death of Gratian and that of Magnus Maximus, and at the commencement of the term Arcadius was, as we have seen, a child of six. A comparison of the busts on Ratto's Figs. 3 and 4 suggests an advance in age of at least two years: the Augustus is no longer a child; he has become a boy. But this is not all the coin has to tell us, for the reverse type is that of Roma holding a globe, not an inscribed shield as on the next type.

Arcadius was created Augustus on the 10th of January 383, and the first five years of his reign would therefore have been completed in January 388, and the second type of reverse, with a shield inscribed VOT V MVL X substituted for the globe in Roma's hand, was no doubt adopted when he celebrated his 'quinquennalia'. It follows, therefore, that Ratto's coin, Fig. 4, was struck before this event and, judging from the portrait, when Arcadius was at least eight years old. But the reverse legend has only three Gs, from which we infer that Magnus Maximus had not yet been recognized.

Sub-period (*c*) is also not without its bearing on the date of the recognition of Magnus Maximus, and Tolstoi's Fig. 19 provides us with yet a later portrait of Arcadius before the celebration of his 'quinquennalia', but struck at a date when the recognition of the rebel had become an accomplished fact, for the reverse legend has four Gs. The remainder of the types with the older bust and four Gs (Tolstoi, Fig. 21, and Ratto, Fig. 5) were struck after the 'quinquennalia' of Arcadius, probably on the celebration of that event, and before the death of Magnus Maximus in August 388.

The evidence of the coins may not be precise enough to have a value for the historian, but for the numismatist it is not without its interest.

Tolstoi does not furnish us with an illustration for our sub-period (*d*), but the defect is made good by Ratto's Figs. 6, 7, and 8.

I have not so far been able to trace the existence of a coin illustrating our sub-period (*e*), which demands a youthful bust and two Gs.

The sub-period, it is true, is one of but brief duration, but discovery may yet await some fortunate collector.

Tolstoi's Fig. 27 and Ratto's Fig. 9 with the inscription VOT X MVLT XV illustrate the remaining sub-period (*f*).

With period II the terminal Gs become two, for although Arcadius was virtually supreme ruler in the East, yet, in theory, the Eastern and the Western Empires still continued, the Roman Empire under two sovereigns.

The second question with which I propose to deal has been touched on by me already in the *Numismatic Chronicle* and in Spink's *Numismatic Circular*. It relates to the attribution of the imperial gold coins bearing the names and effigies of Leo III and his son Constantine V, concerning which considerable confusion appears to exist.

There are three distinct types of solidi, omitting minor variations in the representation of the junior emperor. On the first we have on one side a bust of Leo III holding a globe surmounted by a cross and the legend ϹNOLEONPAMYL, and on the other side a child-bust of Constantine V with the legend CONSTANTINYS. The second type is precisely similar, except that Constantine is represented as a beardless young man. The third type differs from the first two in that it exhibits Constantine with a beard, and each emperor holds a cross potent instead of the globe surmounted by cross. Numismatists have had no difficulty in assigning the two first types to the joint reign of Leo III and his son, and the third to the sole reign of Constantine V after the death of his father. But the trouble has arisen with the smaller denominations. If numismatists would have been content to follow the cue given them by the solidi all would have been well, but this would have left them until quite recently with three blanks in the series, for no semissis of type 2, and no semissis or tremissis of type 3 was known to exist. A numismatic fiction was accordingly invented, and it was asserted that the beard was omitted from the representation of Constantine V on his sole coinage in the case of the smaller denominations, which, it was alleged, could only be distinguished from that struck during the joint reign of himself and his father by the treatment of the bust of Constantine. Those coins, it was said, which exhibited a larger bust, and were in lower relief, must be assigned to the joint reign of Leo III and his son, as being more in conformity with those which immediately preceded them, while those which presented a smaller head and a bolder relief must be assigned to the sole reign of Constantine V, as more in conformity with those which followed them. Even Wroth

adopted this theory, and as a result has assigned a semissis and a tremissis of the joint reign to the sole reign of Constantine V (*B.M.C.*, Pl. XLIV, 2 and 3). No one seems to have realized that the smaller bust was in reality a child-bust, and should in consequence precede the larger and older one; nor does any one seem to have been troubled by the fact that on the admitted solidus of Constantine V the cross on globe has been replaced by the cross potent. Tolstoi has rightly given Wroth's semissis to the joint reign of Leo III and Constantine V, but, for some inexplicable reason, he has given the corresponding tremissis to the sole reign of Constantine V.

Fortune, however, has for once favoured me, and I now have in my collection, not merely an example of the missing semissis of type 2, but also of type 3. The tremissis of type 3, therefore, now alone remains to be accounted for. Tolstoi's Pl. 66, Fig. 11 (wrongly attributed to Constantine V) gives a good illustration of the tremissis of type 1, and his Fig. 97, on the same plate, of a tremissis of type 2.

LE MONETE LEGIONARIE DELL' IMPERATORE GALLIENO E LA SUA III^a GRANDE VITTORIA

LODOVICO LAFFRANCHI

(*Tavole XV–XVII*[1])

TRA le monete romane dette 'legionarie' perchè recanti un riferimento encomiastico alle legioni giova distinguere, dal punto di vista tipologico, due categorie: quella di aspetto monotono ove solo variano le leggende, come nei casi di Marc' Antonio e di Settimio Severo, e l'altra, assai più interessante, in cui ogni legione è indicata dai suoi simboli o blasoni, quale si osserva sugli esemplari di Gallieno.[2]

Questi ultimi, attualmente in discussione, vennero inesattamente descritti dal Cohen nella I^a Edizione della sua opera[3] ove fece troppo affidamento sui vecchi autori, elencando perciò legioni mai esistite. Alla rettifica di questi errori si accinse, pel primo, il Kolb[4] e dopo la sua correzione il quadro geografico e tipologico delle legioni di Gallieno può essere espresso dal prospetto seguente, che però comprende qualche variante ignota a lui ed a Cohen.

Il quadro annesso[5] mette in discussione due punti: l'esatta interpretazione di un simbolo comune ad alcune legioni, ed il significato degli ordinali V, VI, VII che seguono ai loro predicati *P(ia) F(idelis)*.

Sul primo punto, riguardante le legioni VIII^a augusta e X^a gemina a cui và poi aggiunta la I^a italica, la mia interpretazione apparirà nuova. In effetto si ritenne che queste legioni avessero come emblema unicamente il toro, simbolo di Diana, quantunque sia noto, anche per le testimonianze lapidarie, che ogni legione aveva più di un simbolo.

Banduri ed altri vecchi autori ravvisarono talvolta un toro e talvolta un leone nell' animale cornuto che figura sugli esemplari delle legioni suddette: Kolb volle però correggere quest' ultima interpretazione asserendo che si tratta ovunque di un toro, e questa conclusione

[1] The Editors wish to express their regret that, owing to a misunderstanding, which could not be repaired in time, the plates only imperfectly represent the intentions of the Author. On Pl. XVII the following coins are not wanted: No. 3, of the Mint of Lugdunum, No. 12, of the Mint of Rome, and No. 14, of the Mint of Milan.

[2] Vittorino e Carausio imitano, più tardi, Gallieno. Nelle legioni di Vittorino che non appartengono alla Germania ed alla Britannia io ravviserei quelle ove egli prestò servizio prima di arrivare all' impero: si avrebbe così la documentazione numismatica del suo cursus honorum pre-imperiale.

[3] *Médailles Impériales*, vol. v, 1861.

[4] *Num. Zeit.*, v, 1875, p. 77.

[5] Vide p. 200; cfr. Tav. XV, 1–XVI, 8.

ripetuta da filologi e da archeologi sarebbe rimasta pacifica, se anche recentemente in alcuni cataloghi di monete non fosse riaffiorata la tendenza a ravvisare un leone.

Io mi sono presa la briga di esaminare attentamente l'animale in contestazione: in effetto esistono esemplari molto rari ove si vede un vero toro (Tav. XV, 15, 16), laddove quelli comuni (Tav. XVI, 1, 2, 3) riprodotti anche nei lavori di Kolb e di Oman, mostrano un leone, con scarsa criniera e grossa testa a fauci aperte, ornata dal bicorne: simbolo questo della Luna, laddove i raggi adornanti il leone delle coorti pretoriane sono un' attributo solare.

Che si tratti di un leone e non di un toro è dimostrato dall' ampio petto, dalla testa rotonda levata in alto e dalle gambe tese nello slancio: il toro mostra invece il muso lungo abassato e corna veramente taurine. Evidentemente la stranezza del caso disorientò i vari autori, i quali ignorarono non solo i leoni cornuti degli antichissimi rilievi della Susiana, ma persino i cavalli e gli elefanti cornuti delle monete di Seleuco e di Antioco I: non parliamo poi dei ritratti cornuti di Giove Ammone, di Lisimaco, e di Mosè. Appare anche verosimile che l'animale in questione rappresenti il liocorno degli antichi, poi svisato nel Medioevo.

Dopo che dai simboli particolari delle legioni, l'attenzione viene attratta da un' attributo generico, cioè dalle cifre V, VI, VII interpolate nelle leggende che a loro si riferiscono.

L'Eckhel[1] fu il primo a supporre in essi i numeri progressivi delle vittorie di Gallieno, a ciò indotto da altre monete di questo imperatore con *victoria aug III* e *victoria aug VII*. Il Kolb vide invece, nelle cifre suddette, gli anni di regno, o tribunicie potestà, databili dal 257 al 259 d° Cr°: data quest' ultima coincidente colla elevazione di Postumo in Gallia, alla qual regione egli assegna le monete legionarie. Pure degli anni di regno però con inizio differente, vide lo storico Domaszewski.[2]

Pressapoco alle medesime conclusioni arrivò più tardi il Prof^e C. Oman, nel lavoro citato, facendo osservare che appunto nel 259 le legioni del Reno dovettero abbandonare Gallieno passando dalla parte di Postumo: in ciò sta precisamente il perno del problema cronologico inquantochè, dopo questa defezione, Gallieno non avrebbe potuto lodarle come fedeli. Oman però si meraviglia che questo imperatore non abbia commemorate anche le altre legioni dell' Occidente, pur essendo spiegabile la trascuranza di quelle orientali che si trovavano con Valeriano contro i Persiani.

[1] *Doct. Num.*, vol. vii, p. 404.
[2] *Rhein. Mus.* liv (1902), p. 516.

			Italia						
Roma	Cohh(ortes)	praet(oriae)	Leone radiato	VP	VF	VIP	VIF	VIIP	VIIF
Albanum	leg II	part(hicae)	Centauro and^{e} a des^{a}			VIP	VIF	VIIP	VIIF
			Centauro and^{e} a sin^{a}	VP	VF	VIP	VIF		
			Reno						
Castra Vetera	leg XXX	ulp(ia)	Nettuno			VIP	VIF	VIIP	VIIF
Bonna	leg I	min(ervia)	Minerva			VIP	VIF	VIIP	VIIF
Mogontiacum	leg IIXX	(primigenia)	Capricorno			VIP	VIF	VIIF	VIIF
	XXII		Capricorno			VIP	VIF		
Argentoratum	leg VIII	aug(usta)	Toro	VP	VF	VIP	VIF		
			Leone cornuto			VIP	VIF	VIIP	VIIF
			Alto Danubio						
Castra Regina	leg III	ital(ica)	Cicogna			VIP	VIF	VIIP	VIIF
Lauriacum	leg II	ital(ica)	Lupa	VP	VF?	VIP	VIF	VIIP	VIIF
			Capricorno			VIP	VIF		
Vindobona	leg X	gem(ina)	Toro			VIP	VIF		
			Leone cornuto			VIP	VIF	VIIP	VIIF
Carnuntum	leg XIIII	gem(ina)	Capricorno[1]			VIP	VIF	VIIP	VIIF
Bregetio	leg I	adi(utrix)	Capricorno	VP	VF	VIP	VIF	VIIP	VIIF
			Pegaso			VIP	VIF		
Aquincum	leg II	adi(utrix)	Pegaso[2]			VIP	VIF	VIIP	VIIF
			Basso Danubio						
Singidunum	leg IIII	fl(avia)	Leone in corsa			VIP	VIF	VIIP	VIIF
Viminacium	leg VII	cl(audia)	Toro (?)			VIP	VIF		
			Leone cornuto			VIP	VIF	VIIP	VIIF
Novae	leg I	ital(ica)	Cinghiale[3]			VIP	VIF		
			Leone marino cornuto					VIIP	VIIF
Durostorum	leg XI	cl(audia)	Nettuno			VIP	VIF	VIIP	VIIF
	IX		Cinghiale[3]			VIP	VIF		
			Dacia						
Potaissa	leg V	mac(edonica)	Aquila e Vittoria			VIP	VIF	VIIP	VIIF
Sarmigethusa	leg XIII	gem(ina)	Leone e Vittoria			VIP	VIF	?—?	

Le note si trovano sulla pagina 201 opp.

Le soluzioni di questi autori, come tante altre riferentisi a particolarissimi aspetti della numismatica archeologica, appaiono viziate dall' origine inquantochè prima di sviscerare problemi minori occorre affrontare quello maggiore consistente nella elaborazione del quadro cronologico-geografico dell' intera monetazione del periodo, più possibilmente vasto, in cui si inserisce la particolare ricerca in oggetto.

Nel caso attuale, durante la formazione del quadro suddetto, sarebbe subito apparsa l'impossibilità che le monete legionarie potessero datarsi dagli anni 257–9 inquantochè nelle tre zecche allora in funzione, Roma, Lugdunum ed Antiochia, altre monete di Valeriano e di Gallieno si datano da questo tempo apparendovi invece anacronistiche le legionarie.

L'elaborazione del quadro cronologico-geografico della monetazione di Valeriano e Gallieno si deve al paziente lavoro di Otto Voetter, nella monografia che, ad onta delle inevitabili lacune e di talune erronee assegnazioni territoriali, costituisce tuttora l'unico lavoro complessivo sulla numismatica di questo tempo.[1]

In essa il Voetter seguendo il criterio dei rapporti fra diritti e rovesci potè stabilire che le monete legionarie non erano che parte di una vastissima emissione avvenuta dopo la fine di Valeriano. Egli includeva questa emissione nel gruppo da lui assegnato alla Spagna e che ora, dopo le ricerche mie e di Pompeo Monti[2] è pacificamente assegnata alla Italia Superiore ed alla zecca di Mediolanum.

Voetter però limitandosi alla classificazione numismatica, trascurò l'esegesi tipologica: questa, nei riguardi delle monete in esame, venne recentemente tentata dal Prof^e^ Alföldi[3] il quale, ritornando al concetto espresso timidamente dall' Eckhel, associò nella interpretazione il riferimento alle legioni e quello alle vittorie.

Il punto più scabroso del problema è costituito dalla III^a^ vittoria

[1] *Atlas der Münzen des Kaisers Gallienus*, etc. Erste Abteilung, Tav. XVI–XVII, annesso alla *Numism. Zeitsch.*, Bd. xxxii. Vienna, 1900.

[2] Cfr. *Bollettino Italiano di Numismatica*, 1903, pp. 35–40; 1904, pp. 2–8; pp. 113–15; 1905, pp. 7–8, 95–100.

[3] 'The Numbering of the Victories', etc., in *Num. Chron.* 1929, pp. 218–77.

Note a pag. 200.

[1] Milani: *Ripostiglio della Venèra*, p. 17, n. 183–160.

[2] Due aurei di Gallieno (Cat. Trau, n. 2938–59) mostrano *VII des cos* (fine 265) unito ai tipi del cinghiale e del pegaso; sarebbe seducente attribuire ad essi un riferimento alle legioni *I e II adiutrix*, *I italica e IX claudia* durante la presenza e forse (Trau, n. 2930: *felicitati aug*) la navigazione di Gallieno sul Danubio da Aquincum a Durostorum: senonchè a questo riferimento si opporrebbero i coevi antoniniani di Roma ove il cinghiale ed il pegaso figurano come simboli di Ercole e del Sole conservatori dell' augusto.

[3] Descritto da Oman in *Num. Chron.* 1918, p. 80.

che è accennata in un primo tempo (an. 255–7) sugli antoniniani della zecca di Roma con *germanicus max(imus) ter(tium)* ed in un secondo dalle zecche di Roma[1] e di Mediolanum con *victoria aug III* e *vict gall(ieni) aug III*: a complicare ancor più la cosa intervengono, in quest' ultima zecca, gli esemplari con *victoria aug VII* e *VIII* e *fides exerc VIII* che mostrano di continuare la numerazione delle monete legionarie, e nelle quali Alföldi ravvisa pure la sequenza di altrettante vittorie di Gallieno.

Egli inizia poi l'esame degli elementi cronologici, forzandosi di farli aderire alla sua tesi; perciò afferma che la cattura di Valeriano dovette essere nota a Roma prima di Ottobre 260, per cui le monete colla III[a] vittoria che iniziano la nuova emissione debbono assegnarsi agli ultimi mesi di questo anno quantunque egli ammetta che per le monete alessandrine con LH la fine di Valeriano non venne conosciuta ad Alessandria se non qualche tempo dopo il 28 Agosto: a suo avviso, poi, già in questo tempo sarebbe avvenuta in Oriente l'usurpazione di Macriano e Quieto che i papiri datano dall' ottavo anno egiziano di Gallieno (260–1).

Alla medesima data degli ultimi tre mesi del 260 apparterrebbe la magnifica serie delle monete onoranti le legioni del Reno e del Danubio, ove la redazione VIP VIF significherebbe che le legioni si mostrarono pie e fedeli a Gallieno in occasione della sua VI[a] vittoria. Qui appare però il contrasto fra le coeve vittorie III e VII–VIII: Alföldi spiega l'apparente contraddizione cogli ordini dati dal quartier generale prescriventi un differente metodo di supputazione delle vittorie per cui *victoria aug III* diventò *victoria aug VII*. Questa innovazione si spiegherebbe:

1° Coll' assoluto parallelismo fra la vittoria VII ed il VII numero di fedeltà delle monete legionarie che proverebbe il riferimento ad una medesima guerra.

2° Non vi è dubbio che VII rimpiazza III, riferendosi al medesimo evento.

3° Dato che le legioni del Reno, le quali debbono essersi ribellate a Gallieno nel Dicembre 260, mostrano la VII 'lealtà', tale numero dovette essere iscritto prima di questo mese: di conseguenza *victoria III* = *victoria VII* ricorda la soppressione di Regaliano in fine autunno 260.[2]

[1] Alföldi allega una diligentissima tabella ove corregge ed integra il Voetter circa la zecca di Roma: altrettanto diligente non appare però il suo apparato per la zecca di Mediolanum.

[2] Egli però non spiega perchè non si usò la nuova supputazione anche per la vittoria su Macriano. Che Gallieno dopo la cattura del padre iniziasse una nuova supputazione, non delle vittorie ma degli anni di regno, venne supposto a proposito

Secondo Alföldi la rivolta delle legioni del Reno pose fine alla coniazione delle monete legionarie: dopo di esse *victoria aug VIII* e *fides exerc VIII* riguarderebbero la sconfitta di Macriano nell' estate del 261. Ritornando alle legioni egli pensa che VP VF si riferisca alla vittoria di Gallieno sugli Alemanni presso Milano nel 258 o 259, laddove VIP VIF riguarderebbe quella sull' usurpatore Ingenuo, pure di questo tempo.

Circa la cifra VIIP VIIF egli la ritiene assente dalle legioni X gemina, XI claudia, XIII e XIIII gemina, quantunque il mio prospetto delle legioni dimostri che solo di una legione non si sono rinvenuti gli esemplari corrispondenti: in parte ciò è ammesso anche da lui stesso.

L'assenza suddetta dimostrerebbe che queste quattro legioni si erano ribellate alla fine del 260 proclamando l'usurpatore Regaliano. Ritornando poi sulla già supposta innovazione nella supputazione ufficiale delle vittorie di Gallieno, egli conclude che:

Victoria I (già V) riguarda la vittoria sugli Alemanni.

Victoria II (già VI) la sconfitta di Ingenuo.

Victoria III (già VII) quella di Regaliano.

In quanto alla data della ribellione di Postumo essa per i motivi già detti deve assegnarsi al Dicembre del 260.

Non mi sento soverchiamente pessimista se suppongo che al lettore le conclusioni di Alföldi appariranno molto complicate e dettate da una preoccupazione unica che lo obbliga a costringere, innaturalmente, nei tre mesi più volte accennati, tutti i dati numismatici ed i fatti storici.

Non aderendo alle conclusioni di alcun autore precedente, mi duole di contraddire anche Alföldi di cui ammiro il fervore col quale attende a divulgare la numismatica nell' ambiente colturale filologico, ma qui vale l'assioma che la verità non si fa strada se non attraverso le discussioni e le contraddizioni.

Anzitutto osservo che egli afferma di essersi basato sul giusto principio per cui un solo diritto data i molti rovesci a cui si associa, onde stabilire la contemporaneità fra vittoria III[a] e legioni, ma poi esula da questa procedura trascurando gli esemplari più decisivi: quelli colla inscrizione del IIII[o] consolato che costituiscono il caposaldo cronologico per l'intera emissione di Mediolanum, datandola, contro la sua tesi, dal 261 anzichè dal 260.

L'apparato numismatico che segue, da me predisposto, non si allontana in alcun punto dal principio suddetto, risultandone così una

di una data alessandrina, (Cfr. la mia 'Nota sulla data LHA delle monete alessandrine di Gallieno', in *Aegyptus*, 1937, fasc. I.)

cronologia, non forzata ma naturale, che per maggior evidenza ha inizio coll' origine della zecca stessa. Onde condensare in minor spazio ho poi ridotto al minimo le citazioni, anche perchè si tratta di monete rappresentate, grosso modo, nella accennata monografia del Voetter a Tav. XII e XIII. Indicherò con * i tipi di cui si hanno anche esemplari in oro.

I^a Emissione: secondo semestre del 260

La zecca di Mediolanum mostra di iniziare la sua attività nell' estate di quest' anno prima che dall' Oriente arrivasse la notizia ufficiale della cattura di Valeriano, e dalla Gallia quella della uccisione del cesare Salonino. Questa zecca sostituisce quella di Lugdunum caduta in potere di Postumo e perciò ripete alcuni dei suoi tipi monetali.

imp valerianus aug.

R. *securit perpet:* anche quin°, Tav. XVI, 11: mia collezione.

fortuna redux.

imp gallienus aug.

R. *victoria augg*:* anche quin°: GB. Tav. XVI, 10, con e senza CS (SC retrogrado) nel campo: mia collezione.

diana felix: Tav. XVI, 12: anche GB.

salonina aug.

R. *fecunditas aug:* Tav. XVI, 13*: anche quin°: anche GB. con e senza CS nel campo: mia collezione. (Da Voetter erroneamente assegnati a Roma.)

sal valerianus cs.

R. *princ iuvent:* Tav. XVII, 1 (Voetter erroneamente a Lugdunum).

adventus augg: mia collezione (Voetter, idem).

Alföldi, ritenendo errata le descrizioni di questo tipo rarissimo, date da Cohen e da Voetter, suppose che si trattasse del medesimo conio con *adventus aug*, che si trova più tardi per Gallieno, ravvisandovi senza fondamento una prova per la sua cronologia.

gallienus aug.

R. *salus ital.* (Gallieno e l'Italia turrita): Tav. XVII, 4 (inferiore): Museo di Torino.

Tipo allusivo alla liberazione dell' Italia dopo la vittoria sugli Alemanni presso Milano.

virt gallieni aug.

marti propug: Tav. XVII, 4 (superiore).

A questa medesima emissione appartiene anche il medaglione di Gallieno e Salonina con *pietas faleri* del quale accenna diffusamente Alföldi.

II^a Emissione: anno 261

Gallieno assume in quest' anno il IV° consolato per iniziare il rito dei decennalia: da questa celebrazione si motivano tutti i tipi

monetali dell' anno, i quali ragruppandosi attorno a determinati conii del diritto mostrano l'andamento cronologico della monetazione stessa. Verso la fine dell' anno appaiono le iniziali delle officine: P(*rima*) S(*ecunda*).[1]

imp gallienus aug.

R. *fides mil*, *victoria aug.* (su globo fra prigioneri), *vict. gal. aug. III: virtus mil. gallienus aug.*

R. Legioni con VP VF.
Legioni con VIP VIF: Tav. XV, 2, 3, 5, 6, 8 etc.
vict gal aug III:* coi busti di Gallieno e Salonina: Museo di Vienna.
gallienus aug.

R. Legioni con VP VF } come segue
Legioni con VIP VIF }
votis decennalibus: Tav. XVII, 9.
gallienus aug.

R. Legioni con VIP, VIF: come sopra.
vic gal aug III: (anche irregolare, cioè ibrido, con *marti pacife* P |).
gallienus aug.

R. Legioni con VIP VIF come sopra.
votis decennalibus: Tav. XVII, 10.
pm tr p viiii cos iiii pp.
gallienus aug.

R. Legioni con VIP VIF come sopra.
pm tr p viiii cos iiii pp: anche denaro a t^a laur^a, Museo di Vienna.
vict aet(erna) aug.
gallienus aug.

R. Legioni con VIP VIF come sopra. Ad onta della loro rarità si può ritenere che non si tratti di coniazioni irregolari cioè ibride.
gallienus aug.

R. Legioni con VIIP VIIF: Tav. XV, 4, 7, 11 etc.
adventus aug: Tav. XVII, 2*.
marti propugnat.
*vict gal aug III *.*
*vict gallieni aug *.*
virtus augusti: Tav. XVII, 11*.
victoria aug VII.
Gli esemplari della serie che segue datata da VIII esistono tanto con P o S quanto senza.
gallienus aug.

R. *fides exerc VIII:* Tav. XVII, 5.
victoria aug VIII: Tav. XVII, 8.
iovi conserva: stante, Tav. XVII, 6: seduto.

[1] Numerosi esemplari di questa emissione vennero poi descritti in *The Hoard of Komin* di Zoltan Barcsay-Amant. Budapest 1937.

marti pacife o *pacifero*: Tav. XVII, 7.
pax augusti *.
virtus aug (Ercole).
vota decen(n)alia.
laetitia aug.
providentia aug: Tav. XVII, 13.

Questi due ultimi tipi datano forse dell' anno successivo 262. Alla suddetta serie datata da VIII si ascrive il medaglione d'argento col tipo dell' *adlocutio* (Tav. XVI, 9, Medagliere Milanese), ove la testa di Gallieno appare ornata da semplice tenia.[1] L'*adlocutio* appare ordinariamente in occasione della proclamazione, come in Caligola, oppure delle acclamazioni imperatorie, come in Traiano, Commodo e Settimio Severo. Sintomatici per l'analogia di supputazione col caso di Gallieno sono i GB di Traiano ove appare la cifra VIII (poi VIIII) per indicare le acclamazioni imperatorie. Un' altra analogia è poi costituita dall' associazione della *fides exercitus* o *militum* all' *adlocutio* sugli esemplari di Commodo e di Settimio.

Come si è visto, il caposaldo cronologico costituito dalle monete ov' è iscritto il IIII° consolato di Gallieno fa crollare completamente la cronologia di Alföldi. D'altra parte era d'uso che dall' assunzione del consolato o dai *decennalia*, e non prima, gli imperatori iniziassero le più radicali innovazioni nei tipi monetali. Così vediamo in Vespasiano, in Tito, in Traiano, Adriano, Antonino e più specialmente verso la fine del III° secolo.

Alföldi per suffragare la sua tesi si vide costretto ad una interpretazione troppo ardita: quella che la notizia della catastrofe di Valeriano fosse già arrivata in Italia nell' ottobre 260: si è però visto che a questa data la notizia non era forse arrivata nemmeno in Egitto, e d'altra parte le sottoscrizioni del Codice recano la firma di Valeriano anche in Dicembre.

È evidente che, pure ammettendo che la prima notizia fosse arrivata avanti questa data, per rispetto al vecchio imperatore si attese almeno sino alla fine dell' anno ad accoglierla ufficialmente. Abbiamo più tardi gli esempi di Graziano e di Valentiniano II[2] mostrantici che il nome di questi imperatori figura sulle leggi e sulle monete parecchio tempo dopo la loro uccisione. Solo il fatto che Gallieno assumette

[1] Questo medaglione mostra al rovescio la redazione *augg* nonchè le figure di Valeriano e Salonino. L'incoerenza si spiega col fatto che lo scultore non fece chè copiare il coevo medaglione di Roma (Gnecchi: *Medaglioni Romani*, T. 113, n. 5), il cui rovescio appare poi prodotto dal medesimo conio già usato per Gallieno stesso (Gnecchi, T. 113, n. 4), quando viveva ancora Valeriano.

[2] Cfr. mio lavoro: 'Commento Numismatico alla storia dell' imperatore Magnenzio', in *Atti e Memorie Ist. Ital. di Num.* 1930, p. 197.

il 1° Gennaio 261 il consolato senza la compagnia del padre dovette significare la fine di Valeriano.

La certezza documentaria di tutti questi elementi appare così pacifica che la conclusione negativa di Alföldi non si spiega se non con una contrarietà che a lui sembrò insuperabile, costringendolo ad abbandonare la strada maestra tracciata dalle indicazioni insopprimibili della numismatica.

Lo scoglio che già aveva fatto deviare Kolb ed Oman è poi sempre quello della incompatibilità fra le monete esaltanti le legioni del Reno come fedeli a Gallieno e l'evento della proclamazione di Postumo fatta dalle medesime in odio a Gallieno stesso. Questo evento datato dal Tillemont al 260 venne poi retrocesso al 258 o 259 dagli epigrafisti compresi Mommsen e Cagnat[1] laddove Alföldi dovette ritornare sulla prima data per costringere entro il brevissimo tempo di tre mesi la vastissima monetazione esaminata.[2]

I vari autori non si sono chiesti se le monete legionarie non avevano un riferimento commemorativo ad eventi passati anzichè uno contingente al tempo della loro coniazione: nel primo caso il fattore Postumo diventa completamente estraneo alla questione e Gallieno nel 261 potè lodare le legioni del Reno anche se, a questa data, non gli erano più fedeli.

Non si è poi considerata l'appartenenza delle sue monete legionarie al ciclo dei *decennalia* nel quale, usualmente, si hanno dapprima le monete del 'consuntivo' i cui tipi espongono cioè, encomiasticamente, l'attività e gli onori dell' imperatore durante il decennio che stà per compiersi, poi le 'monete programma' del decennio successivo. La proclamazione ad opera delle legioni costituiva il titolo maggiormente vantato dagli imperatori per legittimare il loro potere: ecco perchè Gallieno in occasione dei *decennalia* encomiò le legioni a cui doveva l'impero, similmente a Settimio Severo che però elargì l'encomio numismatico poco tempo dopo la proclamazione.

Alföldi non accenna menomamente alle monete legionarie di Settimio, laddove Kolb ed Oman le citano incidentalmente senza ravvisarne l'intima analogia con quelle di Gallieno. Infatti Settimio venne proclamato a Carnuntum dalla legione XIIII Gemina alla quale si associarono tutte le legioni del Reno e del Danubio tranne la X^a^, forse assente. Mancano necessariamente le coorti pretoriane e la legione II Partica parteggianti per Didio Giuliano.

[1] *Cours d'épigraphie latine*, IVe éd., p. 224.

[2] Contro questa data si leva anche il recentissimo lavoro di Mattingly (*Num. Chron.* 1936, pp. 89–114) le cui conclusioni cronologiche circa Valeriano e Gallieno mi sembrano però troppo ardite.

Assolutamente analogo è il caso di Valeriano e Gallieno proclamati dalle legioni della Rezia e del Norico. Il consenso di tutte le altre legioni del *limes* si attuò rapidamente attraverso i collegamenti dei posti militari e poco dopo anche le coorti pretoriane e la legione II Partica si levarono in Italia contro Emiliano.

Come nel provvedimento di Settimio, anche più in quello di Gallieno, le monete legionarie non mostrano alcun riferimento contingente a vittorie, nemmeno in guerre civili, ma semplicemente, in occasione dei *decennalia*, l'elargizione di un' encomio per la parte avuta dalle legioni nella proclamazione dell' imperatore superstite.

La partecipazione simultanea, anche con semplici *vexillationes*, di tutte le legioni del *limes*, praticamente impossibile, ad ipotetiche vittorie, venne, come si è visto, affacciata da Eckhel e da Alföldi per la presenza degli ordinali V, VI, VII, VIII. Alföldi però aggiunge che queste indicazioni sono assai vicine alle acclamazioni imperatorie: io invece ritengo che si tratti puramente e semplicemente delle acclamazioni medesime necessariamente conseguenti a vittorie di scarsa importanza per le quali non era richiesta la presenza dell' imperatore come si osserva principalmente pei casi di Claudio e Domiziano. Nel caso attuale si può concordare con Alföldi ritenendo che la V acclamazione di Gallieno può riferirsi alla sua vittoria sugli Alemanni presso Milano nel 258 o 259.

Il ravvisamento di acclamazioni imperatorie si accorda poi con una iscrizione[1] documentante che Gallieno negli ultimi giorni del dicembre 261 era *tr p X imp X cos IIII des V*. Non è a meravigliarsi se Gallieno in un solo anno ebbe cinque acclamazioni imperatorie dati gli antecedenti di Claudio e di Domiziano: piuttosto mi si potrà fare l'obbiezione circa il modo con cui esse sono espresse sulle monete.

Modo irregolare e reticente, ma spiegabile trattandosi di una manifestazione provinciale che al certo non troverebbe analogia nell' Urbe; l'analogia si trova invece con una moneta di Settimio Severo, citata anche da Eckhel, coniata a mio avviso ad Alessandria,[2] ove si legge *aequitas II* per *aequitas cos II*. Il fatto che nell' ultima serie descritta, solo i tipi *victoria aug* e *fides exerc* sono accompagnati dalle acclamazioni VII ed VIII si deve a ciò che soltanto questi tipi, come quelli delle legioni, hanno un riferimento all' esercito.

Come l'importanza, che ho messa in luce, dei *decennalia* spiega il carattere retrospettivo delle monete legionarie, altrettanto ritengo

[1] CIL viii. 1849; citata anche da Alföldi.

[2] XI° anno imperatorio di Costantino Magno: in *Atti Accad. Rom. Pont. di Archeologia*, 1922, pp. 413–26.

per quelle esaltanti la III[a] vittoria di Gallieno che a mio avviso si identifica con quella delle accennate monete con *germanicus max(imus) ter(tium)* ottenuta attuando quella *profectio* alla quale, come dimostrai in altro lavoro,[1] erano obbligati gli imperatori dopo la proclamazione.

Fu nel tempo fra il 254 ed il 256 che Gallieno attuò la sua *profectio* obbligatoria, avendo per meta la Gallia minacciata dagli Alemanni, sui quali riportò tre grandi vittorie di cui l'ultima, decisiva, ebbe grande risonanza, non oscurata nemmeno da quella di Milano, e perciò rievocata in occasione del 'consuntivo' dei *decennalia*, sull' esempio di quanto avvenne per la vittoria giudaica colle primitive e tardive monete di Vespasiano e di Tito.

Contemporaneamente ai bronzi che, in occasione dei *decennalia*, rievocano la *iudaea capta* di otto anni prima, appaiono infatti sulle monete d'oro e d'argento di questi imperatori le acclamazioni imperatorie per le vittorie britanniche ottenute dai loro legati.

Precisamente, in tutto e per tutto, come nel caso di Gallieno! Anche Domiziano, Traiano, Adriano, ed altri imperatori mostrano poi, nei *decennalia*, di rievocare numismaticamente le loro vittorie iniziali.

Ritenendo piane ed accessibili le conclusioni raggiunte concludo finalmente col seguente riassunto:

1° La zecca imperiale di Mediolanum ebbe origine nell' estate dell' anno 260 d° Cr.

2° Il preteso 'toro' delle monete legionarie, ad un' attento esame, mostra di essere, sulla maggioranza degli esemplari, un leone cornuto.

3° Questa monete e le altre concomitanti mostrano di non essere datate avanti il IIII° consolato di Gallieno (gennaio 261).

4° Gli ordinali V, VI, VII, VIII indicano delle acclamazioni imperatorie impossibili a riferirsi a vittorie di Gallieno contro gli usurpatori essendo, ancora in questo tempo, vietata dalla legge l'esaltazione di vittorie in guerre civili: devono perciò riferirsi a piccole vittorie dei suoi legati.

5° La terza vittoria di Gallieno ricordata assieme alle legioni, è ancora quella del suo inizio di regno, rievocata in occasione dei *decennalia*.[2]

Termino colla più sentita gratitudine ai signori: Mr Mattingly

[1] *Atti e Mem. Ist. Ital. di Num.* 1921, pp. 47, 62.

[2] Un riferimento alle tre grandi vittorie di Gallieno rievocate in occasione dei *decennalia* si vede anche su una moneta alessandrina (Dattari: *Numi Augg. Alexandrini: Gallienus*, n. 5274) colla data L *ENATOY* (261–2) ove figura un trofeo, ai piedi del quale sono tre barbari nudi che evidentemente non vanno confusi coi legionari di Ingenuo, Regaliano e Macriano!

(Londra), Dr Babelon (Parigi), Dr Pink (Vienna), Prof^e^ Farina (Torino), Prof^e^ Nicodemi (Milano) che mi fornirono gessi dei Gabinetti da loro curati, nonchè al Prof^e^ Alföldi che mi mandò in esame le impronte del tesoro di Comin. Uno speciale ringraziamento devo poi al collega Mattingly che curò la pubblicazione del mio lavoro.

EIN MÜNZBILD DES SEXTUS POMPEIUS

JOSEF LIEGLE

Vs. MAG·PIVS·IMP·ITER
Ein Kriegsschiff und darüber ein Turm, den ein Standbild krönt,
Rs. PRAEF·CLAS·ET·ORAE·MARIT·(oder ORAE·MARIT·ET CLAS·) EX·S·C
Die Scylla mit einem Ruder zum Schlag ausholend.

DIESER Denar nimmt unter den Prägungen des Sextus Pompeius eine wichtige Stelle ein. Die Entscheidung der Frage, ob der Rundturm auf der Vorderseite dem Schiff zugehöre oder ein selbstständiger Teil der Darstellung sei, ergibt sich bei unvoreingenommener Betrachtung von selbst. Wohlerhaltene Ausprägungen gut geschnittener Stempel zeigen rings um die Basis des Turmes das freie Münzfeld und keinerlei unmittelbare Verbindung von Turm und Schiff. Der architektonische Charakter des Turmes, seine Rundform, seine Höhe, der Mangel jeglicher Andeutung einer Holzkonstruktion, sowie der hochgelegene Kranz von Bogenfenstern entspricht nicht dem Typus des Wehrturmes auf Kriegsschiffen, sondern dem des Leuchtturmes. Auch die krönende Statue weist den Bau in die Reihe bekannter statuengeschmückter Hafen- und Leuchttürme. Sie wäre bei einem Schiffsturm unangebracht. Und endlich entspricht die Verbindung 'Turm und Schiff' selbst einem bestimmten Münztypus, den wir von Provinzialprägungen der Kaiserzeit kennen.[1]

Gewollt aber ist mit dieser einfachen Zusammenstellung eines Schiffes und eines Turmes das gleiche wie auf gewissen, mit Schiffen,

[1] Nur gehören diese einer späteren Entwicklungsstufe der Architekturdarstellung an und zeichnen den Turm exzentrisch (Korinth, Aigai) und mit einer Mole (Alexandria), während sich der Denar des Sextus durch eine zeitgebundene Neigung zu primitiv symmetrischer Komposition charakterisiert und den Turm unbedenklich an die Stelle höchster Ausdehnungsmöglichkeit in die Mitte des Münzfeldes über das Schiff setzt.

Bauwerken und Figuren reich ausgestatteten Barockmedaillen der seefahrenden europäischen Staaten: die Darstellung eines Hafens.

Das Schiff ist das Admiralsschiff des Sextus Pompeius: daher der Legionsadler auf dem Schiffsturm (dessen Holzkonstruktion ganz deutlich gekennzeichnet ist!), daher auch der Dreizack neben der Stylis auf dem Hinterdeck, ein Symbol, das er als 'Sohn Neptuns' führte. Das Admiralsschiff aber repräsentiert die ganze Flotte.

Das Münzbild im ganzen aber bezeichnet hier das Hauptquartier und den Kriegshafen des Sextus in seinem letzten Kampf mit Octavian — Messina, und damit zugleich den Ort der Prägung.

Die Zeit dieser Prägung wird durch das Rückseitenbild näher bestimmt. Denn wir wissen, wann die Scylla den furchtbaren Schlag geführt hat, zu dem sie in dem Münzbild ausholt, und wann sie (*candida succinctam latrantibus inguina monstris* nach den fast gleichzeitigen Versen Vergils Ecl. VI, 75 ff.) die Flotte Octavians zerschmettert und die Matrosen dieses Gegners des Neptunsohnes mit ihren Hunden zerrissen hat. Im Frühsommer 38 vor Chr. nämlich wurde die Flotte Octavians in der Nähe des Vorgebirges Scyllaeum durch einen Sturm von unerhörter Stärke so gut wie vernichtet und damit der erste Gang in dem Endkampf zwischen Octavian und Sextus zugunsten des Sextus entschieden. Das Bild der Scylla ist demnach ein Dank- und Gedenkbild, zur Erinnerung an das Eintreten dieser furchtbaren Meeresgöttin für ihren Verwandten, den 'Sohn Neptuns'.

Aber die Münze enthält noch eine weitere, bisher unbemerkt gebliebene Anspielung auf die Zeitgeschichte. Die den Turm auf der Vorderseite krönende Statue stellt nämlich nicht Neptun dar, wie man annahm. Den linken Fuß aufgesetzt auf eine Prora, in der Rechten den Dreizack, steht hoch auf dem Turme vielmehr ein Mars: das zeigt der Helm auf seinem Haupte und das Parazonium. Aber auch die Haltung der Figur ist dieselbe wie die des Mars auf der Rückseite der Aurei des L. Mussidius Longus für die Triumvirn (Bahrfeldt, *Die römische Goldmünzenprägung*, Taf. VI, 20–VII, 1, S. 60 f.). Wenn aber die auf dem Turm ragende Gestalt nicht Neptun ist, sondern eine Art 'pantheistischer' Verbindung von Neptun und Mars, so liegt der Gedanke nahe, daß hier auf der Bildnisseite der Münze eben der Sohn Neptuns selbst, Sextus als Mars-Neptun dargestellt ist. Dann zeigt dies Münzbild in einer Weiterbildung der Symbolik, die in dem Namen 'Sohn Neptuns' enthalten ist, den Sextus Pompeius nicht nur als Oberbefehlshaber der Flotte, sondern auch des Kriegsheeres und dokumentiert die Bereitschaft des Pompeiussohnes, die Erbsshaft seines Vaters auch

weiterhin zu wahren und Sizilien gegen jeden Angriff, zur See oder zu Lande, zu verteidigen. Die Münze dokumentiert damit seine Entschlossenheit auch der eben in der Organisation begriffenen Landungsarmee Octavians mit aller Kraft entgegen zu treten. Sie dokumentiert endlich sein Vertrauen auf den Sieg mit Hilfe der göttlichen Mächte, die er in sich verkörpert und die er sich verbunden fühlt.

Dann gehört aber der Denar nicht in die Zeit unmittelbar nach der Vernichtung der Flotte Octavians im Jahr 38, sondern in die Zeit der beiderseitigen Vorbereitung auf den Endkampf, 37–6 vor Chr. und ist tatsächlich die letzte Prägung des Sextus vor der Entscheidung.

THE LEGIONARY COINS OF VICTORINUS

HAROLD MATTINGLY

(*Plate XVIII*)

THE numismatist who is wont to boast that his coins can supplement the defects of written history must be prepared now and again to submit his pretensions to the test. The Gallic Empire of Postumus, Victorinus, and the Tetrici, with its scraps of history and its masses of coin, provides an almost ideal ground for the trial. In choosing to rehandle one of its thornier problems I am consciously risking failure: the attempt has seemed worth the making.

My subject—the legionary coins of Victorinus—has already been treated by more than one distinguished scholar, and, on many points, I can depend on results already obtained. The coins are all aurei and belong to the southern mint of Victorinus. In each case the name of the legion is accompanied by a legionary badge. This badge differs in several cases from the badge otherwise known for the legion; but legions may have changed their badges from time to time or the mint-master of Victorinus may even have made mistakes. The latest publication of this coinage[1] records thirteen distinct legions—five stationed within the actual Empire of Victorinus (I Minervia—Lower Rhine, II Augusta—Caerleon, XX Valeria Victrix—Chester, XXII Primigeneia—Mainz, XXX Ulpia Victrix—Vetera), five stationed in the great Illyrican district (IIII Flavia Felix—Moesia, V Macedonica—Middle Danube, X Gemina—Vindobona, XIII Gemina—Dacia Ripensis, XIV Gemina—Carnuntum), and three stationed in the East (II Traiana—Egypt, III Gallica—Phoenicia, X Fretensis—Judaea) (Pl. XVIII, 4–10). To these we can now add the Legio III Parthica, stationed in Mesopotamia.[2] As it is obviously impossible that Victorinus should have had effective control of all those legions, we have to suppose either that he had under him detachments (*vexillationes*) from them all, or that he simply appealed, by way of propaganda, for their support.[3] If we are to decide between these two possibilities and, having decided, are to determine what more follows from our decision, we must look for a moment at the political and numismatic history of the Gallic Empire.

[1] Webb in Mattingly–Sydenham v. ii. 382 ff., 388 ff. and references there given. Cf. also Sir Charles Oman in *Num. Chron.* 1924, pp. 53 ff.

[2] *R.N.* 1933, 288 ff., found at Orange: badge, Centaur walking r., drawing bow.

[3] For yet another suggestion see Laffranchi, p. 198, n. 2, above.

Between the revolt of Postumus early in A.D. 259 and the defeat of the army of Tetricus, deserted by its Emperor, early in A.D. 274, the history of the Gallic Empire seldom emerges even into a half-light. We can, however, feel reasonable certainty that Postumus was behind Aureolus in his invasion of Italy, A.D. 267–8, but died soon after the deaths of Aureolus and Gallienus, as a direct result of the revolt of Laelian at Mogontiacum. Postumus overcame his rival, but was murdered by his troops for refusing to give up the city to plunder. Of Victorinus we know only that he recovered Augustodunum, when it declared for Claudius, of Tetricus I that he was originally governor of Aquitania, that he ruled with some degree of success, but, growing weary of a turbulent and disloyal army, made a voluntary surrender to Aurelian. Of Victoria, the maker of emperors, the Western counterpart of Zenobia, the *Historia Augusta* has much to say, but the coins are silent. We have no products of those dies that Pollio saw at Treveri. That Victorinus had a mother who may have been called Victoria we need not doubt: her role in history is quite uncertain.

The dates have been much disputed, but seem to work out best on this system:

Postumus—early 259 to mid 268.
Laelianus—a short time before the death of Postumus, 268.
Marius—a few weeks or even months after the death of Postumus.
Victorinus—mid 268 to late 270.[1]
Tetricus I—late 270 to early 274.[1]

[1] The evidence of the dated coins of Victorinus and Tetricus I is not easy to interpret or to work into a single self-consistent system. We suggest the following dating as the most likely:

Victorinus:

COS•	already at accession A.D. 268	TR•P	accession to 9 Dec. A.D. 268.
COS•II	A.D. 269	TR•P•II	9 Dec. A.D. 268–9.
COS•III	A.D. 270	TR•P•III	9 Dec. A.D. 269 to death.

Tetricus I.

COS	already at accession in A.D. 270	TR•P	accession to 9 Dec. A.D. 270.
		TR•P•II	9 Dec. A.D. 270–1.
COS•II	A.D. 272	TR•P•III	9 Dec. A.D. 271–2.
		TR•P•IIII	9 Dec. A.D. 272–3.
COS•III	A.D. 274 (?)	TR•P•V	9 Dec. A.D. 273.

If the accession of Tetricus could possibly be delayed till the beginning of A.D. 271 the dating would perhaps run easier.

		TR•P	accession to 9 Dec. A.D. 271.
COS•II	A.D. 272	TR•P•II	9 Dec. A.D. 271–2.
		TR•P•III	9 Dec. A.D. 272–3.
COS•III	A.D. 274	TR•P•IIII	9 Dec. A.D. 273–4.

It is doubtful, however, if so late a date for accession is possible.

Victorinus perhaps reigned at first as rival of Marius. He certainly outlived Claudius and Quintillus, but perhaps not by very long. The end of Tetricus probably falls rather in 274 than late in 273.

Of the mints of this Empire we know something, if not as much as we could wish. Postumus struck from A.D. 259 to *circa* 265, perhaps even later, at a mint which is usually taken to be Lugdunum. From *circa* 266 to 268 he certainly struck at Cologne. In A.D. 267 to 268 Aureolus struck in his name at Milan. Laelianus struck at a new mint, which is presumably Mogontiacum.[1] Marius struck at Cologne[2] and at a second mint, which is perhaps Mogontiacum. Victorinus struck at Cologne, at the second mint of Marius, and at a mint which seems certainly to belong to the south of Gaul, and to be either Lugdunum or Vienna. Tetricus strikes only at this southern mint.[3]

If we turn our attention now more closely to the coinage of Victorinus, we shall find that only two mints, Cologne and the southern mint, strike in any quantity, and that these two differ very markedly not only in style, but also in choice of types. Cologne has to tell of 'Sol Invictus',[4] 'Oriens Aug.', of Victory, 'Comes Aug.', of the 'Loyalty of the Troops', of the 'Happiness of the Age', of Minerva as 'Providentia Aug.', of 'Aequitas', 'Salus', 'Pax', 'Victoria Aug.' Pax, be it noted, is very much to the fore. The southern mint, besides repeating some of these themes, celebrates the arrival of the Emperor, his victory, his valour, his invincible prowess, his indulgence shown to a province or a city, the deities (Diana, Mars, Apollo) that support and sustain him and further his undertakings, the virtues (Aequitas, Felicitas, Laetitia, Pietas, Providentia) that inspire him.[5] Pax is present, but not prominent. On one aureus Victorinus presents to Rome the globe, the symbol of world-power, on another he exhibits the helmeted head of 'Roma Aeterna' herself. A remarkable denarius shows two armed figures standing in front of three women, with the legend, DEFENSOR ORBIS. Busts of Victorinus, with spear and shield, or busts set beside those of Mars and Sol, are found at both mints, but are commoner at the southern. To all this we must add the legionary series, entirely restricted to the southern mint.[6] There is a clear suggestion in the coinage that the reign of Victorinus falls into two parts: (1) a quieter and less adventurous part, represented mainly in the coinage of Cologne; (2) a later part, characterized by some boldness of plan and conception, represented almost solely at the southern mint. The legionary issues, then, must be placed rather

[1] Pl. XVIII, 1.
[2] Pl. XVIII, 2.
[3] Pl. XVIII, 4.
[4] Pl. XVIII, 3.
[5] Pl. XVIII, 11–13.
[6] Pl. XVIII, 4–10.

at the end than at the beginning of the reign and can have no immediate connexion with the Italian adventure of Postumus. As we shall now read our coins and history, Victorinus accepted the situation created by the deaths of Aureolus and Gallienus and the accession of Claudius II. Claudius II placed a garrison under Placidianus at Grenoble, but otherwise took no defensive measures against Gaul, while he went off to Illyricum to fight the Goths. Victorinus on his part, while he suppressed the revolt of Augustodunum, made no aggressive move. It seems sufficiently clear that there was a written or unwritten agreement by which both sides maintained the *status quo* during the great Gothic war. The revolt of Augustodunum was the act of brave men *plus royalistes que le roi* and was not supported by Claudius. But, when Claudius died at Sirmium and Quintillus succeeded him by will of the Senate and a section of the army, the case was changed indeed. The revolt of Augustodunum had probably already ruptured the *Concordia* of the Emperors. The accession of the weaker Quintillus moved Victorinus to decisive action. He declared himself ready in arms to fight for eternal Rome, ignored Quintillus, but held out a hand of friendship to the Illyrian armies, who might be expected to champion Aurelian, and to the Palmyrenes, under the great Zenobia, in the East. The Roman troops of the East had, as we know, been placed under the command of Odenathus by Gallienus. Claudius virtually recognized Zenobia's claim on behalf of her little son, Vaballathus, to the same position. The legions of Judaea, Phoenicia, and Mesopotamia certainly, that of Egypt, probably, must then have been under Palmyrene command: the coins of Victorinus supply valuable evidence that they retained their old names. It can hardly be accidental that no legion of Rhaetia, Noricum, or Italy,[1] neither the praetorian guard at Rome nor the cavalry corps of Milan, figures in Victorinus's army list. He omits that section of the army which must have supported Quintillus, and suggests a coalition of the other forces of the Empire against him. Small wonder that Quintillus with such odds against him, on hearing of the rising of Aurelian, gave up hope and opened his veins. Events did not, however, fall out as Victorinus had planned. Aurelian was an uncompromising champion of reunion and had no use for separate empires either in East or West. Victorinus died soon after the accession of Aurelian by the hand of a justly enraged husband: but, however much the act may have been one of private vengeance, the personal motive may well have been exploited by agents of

[1] LEG III ITALICA—Rhaetia, LEG II ITALICA—Noricum, LEG II PARTHICA—Italy.

Aurelian. But for his sudden death it is hard to suppose that Victorinus, after making such a bold show, should have moved no hand, while Aurelian was struggling for life against the terrible invasion of the Juthungi. Tetricus, succeeding Victorinus, readily accepted the 'pax' offered, whether formally or informally, by Aurelian. The legionary series of Victorinus, then, is our one surviving record of one of the interesting failures of history—the attempt to reunite the broken Roman world on the basis of Gaul rather than of Illyricum. Nor was the failure a dishonourable one, for it was due, in part at least, to that sense of 'fides' and 'moderatio' that prevented Roman, in rivalry with Roman, from carrying the quarrel to the point where it might endanger the safety of the whole state.

ÜBER DIE KUPFERGELDINFLATIONEN IN DEN JAHREN DER THRONKÄMPFE NACH DIOKLETIANS ABDANKUNG

GUNNAR MICKWITZ

Severo et Rufino coss. V. k. Sept. (= 28 *Aug.* 323) *acceperunt coll(egia) fabr(um) et cc* (= *centonariorum*) ⁜ (= *denarium*) *quingenta milia computata usura anni uni centesima u[n]a* ⁜ *LX, de qua usura per singulos an(nos) die V. Idu(s) Ian.* (= 9 *Jan.*) *natale ipsius ex usura s(upra) s(cripta) at memoriam Hos. Flaminini refriger(are) se . . . debunt et (quattuor)viri et sex princ(ipales) et off(iciales) pub(lici) spor(tularum) no(mine) aureos den(os) et sil(iquas) sing(ulas), neicnon et per ros(as) at memor(iam) eius refrigerar(e) deveb(unt) n(umis) CCCLXII.* (Dessau 9420).

DIE Inschrift, deren Text, mit den Deutungen Kubitscheks ausgestattet, oben abgedruckt ist, gehört zu den allerwichtigsten Urkunden der spätantiken Münzgeschichte. Wird doch durch sie die Existenz der Siliqua zu einer Zeit verbürgt, zu der sie bisher niemand hätte voraussetzen können. Das hat wiederum den Zusammenhang der diokletianischen und konstantinischen Münzsysteme viel klarer als vorher gestaltet.

Vor 25 Jahren haben als die ersten Numismatiker Cesano[1] und Kubitschek[2] sich mit dem Stein beschäftigt, vor kurzem ist Kubitschek zu der Inschrift zurückgekehrt[3] und hat, so viel ich sehe, den Schlüssel zu ihrer vollen Auswertung gegeben.

Den Inhalt des Texts hat man in folgender Weise verstanden. Der Donator stellt den *collegia fabrum et centonariorum* eine jährliche Summe von 60.000 Denaren zur Verfügung. Doch sollen daraus am Geburtstage des Stifters einige Sporteln an die munizipalen Organe bestritten werden. Die Bedachten sind die *quattuorviri* von Feltria, wo der Stein gefunden worden ist, die sechs *princ.*[4] und schließlich, nach Kubitscheks Lesung, *off(iciales) pub(lici)*. Auch am Rosentage sollte ein Schmaus abgehalten werden. Dann kommt aber mit der rätselhaften Zahl N CCCLXII die große Streitfrage. Cesano las *numero*, 362 Leute sollten an dem Fest teilnehmen. Kubitschek liest *numis* und setzt einen Nummus gleich 1/12 Siliqua. Er meinte

[1] *Rend. d. Acc. dei Lincei, Sc. Mor.*, Ser. V, vol. xvii, S. 237–56.

[2] *N.Z.*, xlii, 1909, S. 47–66.

[3] *Anzeiger d. Ak. d. Wiss. in Wien*, phil.-hist. Kl. 1934, S. 144–54.

[4] Kubitschek, 1909, S. 48, Anm. 3: d. i. die aus den rangältesten Gemeinderäten gebildete ständige Ratskommission, uns sonst als Zehnerkommission (decem primi) geläufiger.

1909, daß die Stadtbeamten zum Geburtstage 10 Solidi 1 Siliqua und zum Rosenfest 362 Nummi erhalten sollten.[1] Mattingly setzt[2] den Nummus = Siliqua. Kubitschek selbst schlug noch den Ausweg vor, unter N 362 die Nummer der Urkunde im Stadtarchiv zu verstehen.[3] Mehrere der Erklärungen können sofort außer Betracht gelassen werden. 362 Schmiede und *centonarii* hat Feltria nie ernähren können. Auch ein Schmaus zu 362 Sil. = 15 Sol. 2 Sil. ist nicht glaubhaft, weil am Rosentage gewöhnlich weniger ausgegeben wurde als am Geburtstage.[4] Und warum hätte denn der Donator das eine Mal die Siliqua mit *sil.*, das andere Mal mit *n.* bezeichnet? Gegen den Vorschlag, in *n.* nur die Archivnummer zu sehen, spricht schließlich, daß es nach Kubitscheks Ansicht sich um eine Zahlenspielerei handeln könnte zwischen der von ihm errechneten Siliquensumme 241 der Sporteln und der Zahl 362 = $1\frac{1}{2} \times 241$, die natürlich auch auf einem Zufall beruhen kann.[5]

Gemeinsam war allen den älteren Erklärungen die Annahme, daß nach der Verteilung der Sporteln noch die Hauptsumme den Collegien zur Verfügung gestanden hätte. Nun bringt aber Kubitschek die Ansicht, daß die Sporteln + die Festkosten des Rosentages die ganze Summe der Zinsen verschlungen hätte. Dadurch entsteht folgende Gleichung:

60.000 Denare = 10 Aurei + 1 Siliqua + 362 Nummi
= 241 Siliquae + 362 Nummi.

Und schließlich, vorausgesetzt daß 1 Sil. = 12 Nummi:

60.000 Denare = 271 1/6 Siliquae.

Hieraus läßt sich die Relation zwischen Denar und Gold herleiten:

1 Solidus = 5.311 Denare
1 Pf. Gold = 382.428 Denare.

Das wäre also der Wert des Denars im J. 323 n. Chr. Da der Denar im J. 301 im Preisedikt Diokletians 1/50.000 Pf. Gold galt, ist er in der Zwischenzeit siebenfach im Wert gefallen.

Kubitschek[6] drückt die Hoffnung aus, daß die papyrologische Forschung heute Daten bereitgestellt hat, die den Niedergang des Denars besser beleuchten helfen, als es Wessely vor 30 Jahren möglich war.[7] Tatsächlich hat sich das Material in der Zwischenzeit

[1] Kubitschek, 1909, S. 56.
[2] *Roman coins*, S. 228.
[3] Kubitschek, 1909, S. 56, Anm. 2.
[4] Kubitschek, 1909, S. 62.
[5] Kubitschek rechnet 10 Aurei + 1 Siliqua jährlich = $10 \times 24 + 1$ Sil. Nach Dessaus Kommentar, *Inscr. lat.*, no. 9420, hätte man wiederum mit mehreren Siliquae, jedem Stadtsklaven eine, zu rechnen.
[6] Kubitschek, 1934, S. 153.
[7] *Sitz-ber. Wien*, phil.-hist. Kl. 149, 5.

verdoppelt.[1] Am allerwichtigsten ist unter den später veröffentlichten Angaben für die Kontrolle der Kubitschekschen Feltregleichung P. Oxy. 1430 aus dem J. 324. In diesem Papyrus werden nämlich 10½ *γράμματα* Feingold zu 7 Talenten 3.720 Drachmen berechnet. Da 1 *γράμμα* = ¼ Solidus, entspricht die Goldmenge 2 5/8 Solidi. Daraus erhält man die Kurse:

1 Sol. = 2 Tal. 5.317 Dr. = 4.329 Denaren.
1 Pf. Gold = 311.706 Denaren.

Bedenkt man die großen vorangegangenen Währungsschwankungen, muß man sich sagen, daß eine größere Übereinstimmung zweier auf vollständig unabhängigen Wegen gewonnener Resultate nicht zu erwarten wäre.

Der Schluß ist also zwingend, daß Kubitschek die Abkürzungen *aureos den. et sil. sing.* in der Inschrift richtig gelöst hat und daß einerseits die Sporteln wirklich 241 Sil. ausmachten, andrerseits aber den Hauptteil der Zinsen verschlangen. Denn ob die N CCCLXII wirklich 30 1/6 Sil. ausgemacht haben oder vielleicht nur 15, beeinflußt nicht das Resultat in entscheidendem Maße.

[1] Ich habe in einer früheren Arbeit folgende Daten zusammengestellt, *Geld u. Wirtsch. im röm. R. d. IV. Jhdts.*, Societas Scientiarum Fennica, Commentationes humanarum litterarum IV 2 (Helsingfors, 1932), S. 98 ff.:

n. Chr.					
307 PSI 310	1 Unc. Silber	2.776 Dr.	1 Pf.G.	=	150.000 Denare.
307 SB 5679	1 Esel	30.000 ,,	,,		200.000 ,,
311 P. Oxy. 1708	1 Esel	64.000 ,,	,,		360.000 ,,
314 PER E 2000	1 Artaba Weizen	10.000 ,,	,,		1.500.000 ,,
	1 Artaba Gerste	10.000 ,,	,,		2.250.000 ,,
	1 Tagelohn	4–500 ,,	,,	=	630.000 ,,
	1 Artaba Arakos	8.000 ,, ?			
	1 Knidion Wein	1.800 ,,			
316 P. Oxy. 2114	1 Sextar Wein	260 ,,	,,	=	1.404.000 ,,
316 P. Oxy. 84	1 Kentenar Eisen	36.000 ,,			
324 P. Oxy. 1430	10½ Scr. *A*	45.720 ,,	,,	=	311.706 ,,
325 P. Oxy. 1626	1 Aufsehertagelohn	2.000 ,,	,,	=	250.000 ,,

Für die Jahre 314–16 habe ich als einen Durchschnittswert die Gleichung 1 Pf. Gold = 1.400.000 Den. vorgeschlagen, a. a. O., S. 100, Anm. 9, woselbst die Gründe angeführt sind. Nun bringt aber Kase, E. H., *A Papyrus Roll in the Princeton Collection* (Diss. Princeton, 1933) Zeile IV. 31 und VII. 6, folgende Preise:

314/15	1 Artaba Weizen	3.000 Dr.	1 Pf.Gold	=	427.500 Denare
316	1 Artaba Gerste	1.000 ,,	,,	=	250.000 ,,

Die Diskrepanz der Angaben ist offenbar. Ich sehe nur zwei Möglichkeiten: entweder sind die alten Lesungen in PER E falsch, was wenig wahrscheinlich ist, da sie doch von P. Oxy. 2114 gestützt sind; oder, die Preise bei Kase entsprechen nicht den Preisen des freien Marktes. Sie wurden behördlich bei der Verrechnung eingelieferter Naturalien benutzt und es läßt sich gut denken, daß die Behörden, wo es ihnen paßte, einem abweichenden Kurs, z. B. in diesem Falle dem Kurs der außerägyptischen Provinzen, folgten.

Wenn dem so ist, haben wir aber eine inhaltliche Schwierigkeit zu lösen. Früher hat Kubitschek angenommen, daß den Collegien nach Abzug der 10 Sol. 1 Sil. noch eine beträchtliche Summe zur Verfügung gestanden hätte.[1] Nach seiner neuen Deutung beschränken sich die Gelder, die die *collegiati* erhalten, auf die 362 Nummi, d. h. nach seiner Berechnung auf ein Achtel der Sporteln der Stadtbeamten. Wie kann man es aber verstehen, daß die Collegien eine Donation erhalten, von der sie selbst nur einen geringen Bruchteil bekommen? Meines Erachtens besteht keine andere Möglichkeit, als daß die Sporteln nicht den Stadtmagistraten, sondern den Zunftbeamten und -mitgliedern zufielen. Wie stimmen die Benennungen zu dieser Annahme? Das Wort *sportula* kommt öfters in den Inschriften vor als Bezeichnung für in den Collegien verteilte Gelder.[2] *Quattuorviri* als Vorsteher kennen wir zwar nicht, wohl aber *duumviri*, *triumviri* und *quinqueviri*.[3] In den Listen über Geldverteilungen an die Mitglieder der Collegien folgen nach den Vorstehern andere Zunftbeamte: *immunes* und *curatores* oder *magistri* und *curatores*.[4] Diesen würden in unserer Inschrift die *sex principales* entsprechen. *Principalis* kommt, wenngleich selten, als Beamtenbenennung im Collegium vor.[5] Schließlich die *off(iciales) pub(lici)*. Ich möchte in ihnen im Anschluß an die anderen erhaltenen Verteilungslisten die *plebs collegii* sehen.[6] Es ist bekannt, daß die *collegia fabrum et centonariorum* Feuerlöschdienst leisteten, was ein *officium publicum* genannt werden könnte.[7] Demnach hätten nur diejenigen Zunftmitglieder, auf denen wirklich das *munus* lastete, auch an den Sporteln teilgenommen.

Ich sehe wohl ein, daß diese Interpretation Bedenken erregen könnte. Die Belege dafür, daß die Bezeichnungen der Sporteleempfänger von Zunftbeamten geführt wurden, sind unzweifelhaft schwach. An sich hat das sehr wenig zu sagen. Das epigraphische Material über die Collegien ist nämlich im IV. Jhdt. schon derart spärlich, daß Waltzing[8] nur drei Collegien im ganzen Römerreich aus dieser Zeit belegen konnte, obwohl solche in sehr großer Zahl bestanden haben müssen. Im Codex Theodosianus erfahren wir wiederum beinahe nichts über die innere Organisation der Verbände.

[1] Kubitschek, 1909, S. 63.

[2] Waltzing, J.-P., *Études historiques sur les corporations professionnelles*, i (Louvain, 1895), S. 400 f.

[3] Waltzing, S. 405.

[4] Waltzing, S. 400–1.

[5] Waltzing, iv, S. 418 f.

[6] Vgl. *CIL*. v. 5272; x. 444; xi. 126; 5047; xii. 3861; 4393 besonders aber vi. 29.691 (206 n. Chr.) — 29.702; 10.234 (153 n. Chr.), alle bei Waltzing iii, bequem zugänglich.

[7] Vgl. *C. Th.* xiii. 9, 3. *Officium* ist der regelmäßige Terminus für den Dienst in den spätrömischen *corpora*.

[8] Waltzing, ii. 170.

Im Jahre 483 hatten die Konstantinopolitaner Zünfte *primates*, was unseren *principales* entsprechen könnte.[1] Da wir also kaum etwas über die Beamten der Collegien im IV. Jhdt. wissen, geht es nicht an die Möglichkeit abzuweisen, daß die *collegia fabrum et centonariorum* in Feltria von *quattuorviri* und *principales* regiert worden sind. Dabei könnte hier bemerkt werden, daß diese Benennungen auch auf die Stadtbeamten nicht restlos passen. *Quattuorviri* sind uns wohl als 'Bürgermeister' geläufig, die *principales* hat man aber nicht recht unterbringen können.[2] Da also auf beiden Seiten Schwierigkeiten entstehen, wird man getrost die Entscheidung von dem Inhalt des Textes abhängig machen können. Und da wird man in unserer Inschrift eine Stiftung sehen, die mit den bekannteren aus Ostia, CIL VI 29691–29702, auf einer Linie steht.

Da somit die inhaltlichen Schwierigkeiten m. E. geklärt sind, können wir an die wirtschaftsgeschichtliche Auswertung des neuen Materials gehen.

Wie soll nun erstens die Abwertung des Denars verstanden werden? Es ist bekannt, daß die Bronze- oder, wenn man will, Weißkupfermünzen nach Diokletian immer leichter und kleiner ausgeprägt wurden, auch scheint es nach den wenigen vorliegenden Analysen als ob ihr Silbergehalt sich verringert hätte. Bisher hat man dieser Tatsache recht wenig Beachtung geschenkt; man hat gemeint, daß das Kupfergeld Kreditgeld gewesen sei, bei dem der Metallwert den Münzwert nicht beeinflußt hätte. Dieser Gedankengang ist entschieden falsch, was schon die Tatsache zeigt, daß man das Kupfergeld verschlechtert hat. Denn das bei der Verschlechterung gewonnene Metall hat man sicher zur Prägung neuer Münzen benutzt. Dadurch ist die Kupfergeldmenge erweitert worden, wodurch automatisch ein Wertfall folgte. Wenn die Regierungen nicht in der geschilderten Weise durch Erweiterung der Geldmenge von den Verschlechterungen Nutzen gezogen hätten, würden sie sicher die mühsame Umprägung des Münzstockes unterlassen haben. Nun denken einige Forscher, daß die neuen kleineren Stücke einfach Unternominale gewesen sind, eine Inflation wäre natürlich in diesem Fall nicht vorgekommen. Die ägyptischen Daten weisen aber entschieden auf eine Inflation hin, darüber kann kein Zweifel bestehen. Es ist also klar, daß zwischen 300 und 320 eine Inflation im Kupfergeld herrschte und daß diese Inflation durch die Münzverschlechterungen hervorgerufen war.

Ich habe in einer früheren Arbeit den Verlauf des Prozesses nach

[1] *Cod. Iust.* iv. 59, 2.

[2] Vgl. Kubitschek, 1909, S. 48 und 1934, S. 146, Dessau, a. a. O.

dem damaligen Stand der Literatur dargestellt.[1] Das größte Stück wog um 300 c. 10 Gr., 307–11 7–8 Gr., 311–13 4,4 Gr., 313–20 3,5 Gr., nach 320 3,1 Gr. Durch Diokletians Edikt wissen wir, daß ein Pfund Gold im J. 301 den Wert von 50.000 Denaren haben sollte. Im J. 323 muß schon die Verringerung des Gewichts allein den Kurs auf c. 160.000 Denare gebracht haben. Analysen gibt es aus Diokletians Zeit viel zu wenige; man nimmt aber einen Silbergehalt von 4 Prozent an. In den zwanziger Jahren machte der Gehalt, wie wir dank Brambachs Massenanalyse mit großer Sicherheit behaupten können,[2] knapp 2 Prozent aus. Die Verringerung des Gehalts von 4 auf 2 Prozent erhöht den errechenbaren Kurs für das J. 323 auf 320.000 Denare. Auch von den Münzen aus erhält also Kubitscheks Lösung die schönste Bestätigung. Das Zusammentreffen der Ergebnisse drei verschiedener Quellen: Münzen, Inschriften und Papyri, machen den Denarkurs der Jahre 323/4 zu einem der wenigen sicheren Punkte in der Geschichte des Kupfergeldes im IV. Jhdt.

Daran können verschiedene Betrachtungen geknüpft werden. Aus der oben gegebenen Zusammenstellung der ägyptischen Preise unserer Periode ersieht man, daß in Ägypten der Kurs des Goldpfundes in den Jahren 314–16 wahrscheinlich bedeutend höher als im J. 324 war. Ich habe als Erklärung vorgeschlagen, daß Licinius in der Zwischenzeit eine Umbenennung der Kupfermünzen vorgenommen hatte, wodurch der Nominalwert jedes Stückes auf ein Viertel (z. B. von 80 Dr. auf 20 Dr.) herabgesetzt wurde.[3] Das bedeutete eine vierfache Steigerung des Metallwerts der Recheneinheiten und dadurch auch eine vierfache Senkung des Goldkurses in Denaren gerechnet. Ich vermutete dabei, daß der Zweck der Maßnahme eine Angleichung des ägyptischen Münzwesens an das der westlichen Reichshälfte war.[4] Jetzt sehen wir, daß im

[1] A. a. O., S. 82 f.

[2] Brambach, W., *Centenionalis*, *Mitt. für Münzsammler*, i, 1924, S. 84.

[3] A. a. O., S. 101 ff. Voraussetzung für diese Hypothese ist, daß die Lesungen in PER E 2000 richtig sind.

[4] A. a. O., S. 105. Ich bezog damals auf diesen Vorgang die bekannte Nachricht über die Herabsetzung des *Ἰταλικὸν νόμισμα*, die Mattingly, *Num. Chron.* 1927, S. 224, in das dritte Jhdt. setzte und die jetzt Heichelheim, *Symbolae Osloenses*, xiv, 1935, S. 83 für das erste Jahrzehnt des vierten Jhdts. in Anspruch nimmt. *Ἰταλικὸν νόμισμα* wird nur noch in einem anderen Papyrus erwähnt, St. Pal. 20,85, den ich damals auf Grund des Indiktionendatums in das Jahr 305/6 setzte. Nach Kase, a.a.O., S. 25 ff., begann aber der erste Indiktionenzyklus 312. Das Datum des St. Pal. 20,85 würde demnach das Jahr 321 sein. Das wäre an sich eine ausgezeichnete Stütze meiner Hypothese. Schwierigkeiten bereiten aber die für das Jahr 321 viel zu niedrigen Lohnangaben in St. Pal. 20,85, wenn sie nicht nach irgendeinem unbekannten Kurs berechnet sind: die Rechnungen in *Ἰτ. νόμισμα*, *κέρμα* und *ἀργύριον δόκιμον* gehen nämlich in St. Pal. 20,85 durcheinander. Diese Fragen sind noch lange nicht geklärt.

J. 323 tatsächlich der Goldkurs in Italien und in Ägypten gleich hoch war.

Nun noch einige Worte über den N CCCLXII der Feltreinschrift. Die erwähnte Ansicht Kubitscheks, daß die Nummi, wie man wohl lesen muß, 1/12 Siliqua gegolten hätten, entbehrt jeder Stütze in gleichzeitigen Quellen. Diese Relation findet sich in den *glossai nomikai* bei Hultsch, *Scr. metr. rel.* i. 388 ff., wann sie gegolten haben soll, geht aber nicht hervor. Ob um 323 eine Bronzemünze in genügender Zahl zirkuliert hat, die diesen Wert gehabt haben könnte, läßt Kubitschek unentschieden. Es hätte wohl eine Münze mit 2 Prozent Silbergehalt und etwa 9–11 Gr. Totalgewicht sein müssen.[1] Wenngleich die Arbeiten über die Kupferprägung dieser Zeit noch nicht abgeschlossen sind, wird man wohl annehmen können, daß in den zwanziger Jahren keine Münze, die sich diesem Gewicht näherte, geschlagen wurde. Die wertvolleren Stücke des vorhergehenden Jahrzehntes müssen aber schon zu dieser Zeit laut Greshams Gesetz aus dem Verkehr verschwunden gewesen sein. Aus diesem Grunde fällt es mir schwer, einen Nummus zu 1/12 Siliqua anzunehmen; noch dazu würde sein Verhältnis zu der Recheneinheit für Kupfergeld, dem Denar, sehr unbequem gewesen sein: 18,4, was zur Vorsicht mahnt, da doch derartige Relationen viel eher zwischen Münzen aus verschiedenem als aus demselben Metall vorkommen. Schließlich hat Kubitschek selbst in seinem ersten Aufsatz auf eine beinahe gleichzeitige Erwähnung des Nummus in einem Gesetz Cod. Theod. XIII, 3,1 aus dem J. 321 hingewiesen.[2] Er hat auch selbst eine annehmbare Deutung vorgeschlagen. In dem Edikt wird vorgeschrieben, daß ein Sklave als Sicherheit für eine Zahlung von 20.000 Nummi dienen soll. Diese Summe verglich Kubitschek mit dem in Cod. Just. allgemeinen Sklavenwert 20 Solidi, wodurch die Gleichung 1 Sol. = mindestens 1.000 Nummi gewonnen wurde. Wenn nun die Nummi 1/12 Sil. gegolten hätten, würde sich aber die Gleichung auf 1 Sol. = 288 Nummi gestellt haben und der Sklave stände als Sicherheit für 69,4 Solidi, was nicht gut möglich

[1] Wenn man mit einem Kupferwert von 1/1800 und einem Silberwert von 1/18 des Goldes rechnet, vgl. Mickwitz, *Die Systeme des röm. Silbergeldes im IV. Jhdt.*, Soc. Scient. Fennica, Comm. hum. lit. vi. 2 (Helsingfors, 1933), S. 7 ff., hat die 2-prozentige Legierung den Wert von $\frac{98}{100 \times 1800} + \frac{2}{100 \times 18} = \frac{298}{180.000}$ des Goldes. Eine Siliqua ist $\frac{1}{1728}$ Pf. G. = $\frac{180.000}{298 \times 1728}$ Pf. Legierung = 0,3496 Pf. Legierung. $0{,}3496 \times 327$ Gr. = 114,3 Gr. und 1/12 Sil. = 9,5 Gr. Legierung. Eine entsprechende Berechnung nach der Relation AV : Æ = 1 : 3700 (siehe unten) ergibt 11.5 Gr.

[2] Kubitschek, 1909, S. 58 f.

ist.[1] Kubitschek empfahl 1909 die Codexstelle bis auf weiteres zu ignorieren; das halte ich heute nicht mehr für möglich, ergibt sie doch die einzige gleichzeitige Quelle, die entscheidend die Lesung *n(umis)* stützt.[2] Zwei verschiedene Nummi von respective 1/288 und c. 1/1000 nebeneinander im Gebrauch anzunehmen, erlauben aber weder unsere Inschrift noch das Edikt, da in beiden die Nummi ohne charakterisierende Beiwörter auftreten.

Der Codextext eröffnet aber, soviel ich sehe, eine zweite Deutungsmöglichkeit. Da Kubitschek jetzt 1 Sol. = 5,311 Den. setzt, könnte vielleicht 1 Nummus = 5 Den. sein. Das ist an sich sehr glaubhaft. Ich habe in einem anderen Zusammenhang[3] zu zeigen versucht, daß die 10-Gr.-Münze Diokletians 5 Denare galt. Wenn es 323 ein 5-Denarstück gab, kann das nur der direkte Nachkomme des 10-Gr.-Stückes, das 3,1-Gr.-Stück, gewesen sein. Das war die allgemeinste Münze ihrer Zeit, und sie hätte somit gut den Namen Nummus, Kleingeld schlechthin, führen können. Das Stück ist aber nach den bisher bekannten Kupferwerten ein wenig zu wertvoll, um 5 Denare zu gelten. Ziehen wir 5×362 = 1.810 Denare von der Summe 60.000 ab, so bleiben für die 241 Siliquae 58.190 Den., d. h. 1 Sil. = 241,04 Den. = 48,2 Nummi. 48,2 Nummi zu 3,1 Gr. wiegen 149 Gr.

[1] Die Sklaven waren im IV. Jhdt. nicht teurer als zu Justinians Zeit, 359 wurde ein 14-jähriger Sklave um 18 S. verkauft, BGU 316.

[2] Daß die Zahl 20.000 Nummi in Theodosianischer Zeit (so muß es wohl heißen) in den Text hineingekommen wäre, woran Kubitschek 1909 S. 60 gedacht hat, ist nicht sehr wahrscheinlich. Denn 445 galt ein Solidus 7.200 Nummi, *Nov. Val.* 16. 20.000 Nummi wären demnach 2,8 Solidi gewesen, ein sehr geringer Strafsatz. Außerdem hätte man im V. Jhdt. die Strafe nicht mehr in Nummi, sondern in Solidi ausgedrückt, drang doch die Solidusrechnung schon seit 330–40 im ägyptischen Privatleben für Berechnung größerer Summen durch, Mickwitz, 1932, S. 98, 125, Anm. 41, und 130, Anm. 54.

[3] Mickwitz, 1932, S. 60, anders aber W. Giesecke, 'Die Münzreformen der Kaiser Caracalla, Aurelianus, und Diocletianus', *Frankfurter Münzzeitung*, 1933, S. 105, der den Wert 4 Den. vorschlägt. In seinem letzten Aufsatz, *Byz. Ztschr.* xxxv, 1935, S. 374, schlägt Kubitschek für das 10 Gr.-Stück Diocletians den Wert von 10 Denaren vor. Auch wenn man mit Kubitschek die auf diesen Stücken sehr seltene Bezeichnung XXI außer Acht läßt, muß man meines Erachtens an dem Wert von 5 Den. festhalten. Berechnet man nämlich den Metallwert der 10 Gr.-Stücke in reinem Kupfer, vgl. Kubitschek a. a. O. S. 367, so erhält man, angenommen daß sie 4 Prozent Silber enthielten, zwischen Gold und gemünztem Kupfer eine Wertrelation von etwa 1:750, wenn jedes Stück 10 Den. galt, und c. 1:1500, wenn es 5 Den. galt. Von den Analysen der 10 Gr.-Stücke weisen aber sehr viele bedeutend weniger als 4 Prozent AR auf. Bei 3 Prozent stellen sich die Relationen auf beziehungsweise 1:600 und 1:1200. Da wir bis auf weiteres für diese Zeit die Relation zwischen Gold und ungemünztem Kupfer auf c. 1:1800 ansetzen müssen, würde eine Annahme des Kubitschekschen Vorschlages eine Rückkehr zu der von ihm selbst verworfenen Kreditmünztheorie bedeuten. (Eine andere Bewertung des Kupfers würde schon deswegen kein anderes Bild ergeben, weil der Silbersud immer noch den größten Teil des Metallwerts der Stücke darstellte.)

Es gilt jetzt zu untersuchen, ob diese Menge Legierung auch den Wert einer Siliqua hatte. Dabei müssen wir den Wert des Kupfers kennen. Gewöhnlich pflegt man für das vierte Jahrh. mit einem Kupferwert von 1:1800 des Goldwerts zu rechnen. Doch stützt sich diese Relation nur auf Cod. Th. XI 21,2 vom J. 396 und es ist nicht unwahrscheinlich, daß der Kupferwert in den dazwischenliegenden sieben Jahrzehnten bedeutend gestiegen ist.[1] Eine bisher unausgenützte Möglichkeit den Kupferwert in anderer Weise zu bestimmen, gibt uns aber ein Papyrus. P. Oxy. 85, PSI 202 und P. Harr. 73 sind Fragmente von Rapporten über die Warenpreise, welche die Gilden von Oxyrhynchos während der Inflation 338 n. Chr. dem Logisten einreichten.[2] Erhalten sind u. A. die Weizen-, Gersten- und Kupferpreise. Auf Grund des Weizenpreises kann der Kupferwert im J. 338 berechnet werden. Für ein Pfund Kupfer wird man etwa 1/53 Solidus gezahlt haben. Die Relation AU:AE wird sich demnach im J. 338 in Ägypten auf rund 1:3700 gestellt haben.[3] Hieraus

[1] Die Ursache ist in dem Rückgang des Bergbaues während der Unruhen zu suchen, vgl. die weitere Wertsteigerung in Cod. Iust. x. 29.

[2] Die Herausgeber von P. Oxy. 85 und mit ihnen der Herausgeber von P. Harr. 73 lösen an der entscheidenden Stelle die Abkürzungen, z. B. *λι αταλ ς ✳ Α'*, in folgender Weise auf *λί(τραι) ἀταλ ς ✳ Α'*. Der Grund ist offenbar, daß *αταλ*, wenigstens in dem von mir eingesehenen P. Oxy. 85, zusammengeschrieben ist und daß *ταλ*, wie mir Mr. Skeat sagt, als Abkürzung für *τάλαντα* unbekannt ist. Bei dieser Lesart würden die Deklarationen keine Preise, sondern die Lagergrößen enthalten. Diese Annahme ist aber unmöglich, weil dabei ganz unwahrscheinlich kleine Lager herauskommen. Außerdem bleibt *αταλ* unerklärt. Powells Vorschlag, P. Harr. 73, darin ein verdrehtes *Ἰταλικαί* zu sehen, strandet an der Unmöglichkeit einer italischen *artaba* in P. Oxy. 85. Man muß folglich mit Segré, *Metrologia*, S. 454, *λί(τρα) α τάλ(αντα) ς ✳ Α'*, d. h. '1 Pfund [kostet] 6 Talente 1,000 Denare', lesen und *ταλ* als singuläre Abkürzung für *τάλαντα* annehmen. Tatsächlich findet sich PSI 202 Z. 40 ein bloßes *ταλ* und Z. 17 ein *λί(τρα) α* am Zeilenschluß an der entsprechenden Stelle. P. Harr. 73 hat ebenfalls Z. 20 ein bloßes *ταλ*, das Powell *τάλ(αντα)* auflöst. Obwohl der Schreiber in P. Harr. ein anderer ist, folgt er demselben Formular wie derjenige in den anderen Fragmenten. Das neue (1936) Fragment P. Harr. 73 bringt wenig Neues, u. A. weil die Lesungen noch nicht definitiv zu sein scheinen.

[3] Eine *artaba* Weizen kostete 24 Talente, 1 *artaba* Gerste 13 1/3 Talente, 1 *λίτρα* (alexandrinisches Pfund) geschmiedetes Kupfer, *χαλκοῦ ἐλάτου*, 6 2/3 Talente und ein Pfund gegossenes Kupfer 4 Talente. Der normale Preis einer *artaba* Weizen war etwa 1/576 Pf. Gold (vgl. Mickwitz, *Geld und Wirtschaft*, S. 100, Anm. 9). Daraus erhält man: 24 Tal. = 1/576 Pf. Gold; 1 Tal. = $\frac{1}{24 \times 576}$ Pf. Gold und 1 *λίτρα* Gußkupfer = $\frac{4}{24 \times 576}$ Pf. Gold. 100 alexandrinische Pfunde waren 108 römische (Segré, *Circolazione*, S. 53). Folglich 1 röm. Pfund Kupfer = $\frac{100 \times 4}{108 \times 24 \times 576}$ = $\frac{1}{3{\cdot}733}$ Pf. Gold. Selbstverständlich ist dieses Resultat nur approximativ, da erstens die Getreidepreise auch in Ägypten variierten und zweitens heftige Inflationen immer das Verhältnis der Warenpreise untereinander stören.

können wir leicht den Wert von 149 Gr. Legierung berechnen. Er stellt sich auf 3,7 Gr. Silber.[1] Tatsächlich wird eine Siliqua rund 3,4 Gr. gewogen haben. Man wird bei diesen rohen Kalkulationen kaum eine größere Übereinstimmung verlangen können.

Wenn ein Nummus 5 Denare war, wird 1 Pfund Gold nicht 382.428 Denare, sondern 416.513 Denare und ein Solidus 5.789 Denare gewesen sein.[2] Der Denar würde demnach in Ägypten um 25 Prozent wertvoller gewesen sein als in Italien. Das darf uns aber nicht befremden — einige Jahre vorher hatte man noch ganz andere Kursunterschiede.

Als Endergebnis können wir also folgendes Schema vorschlagen:

1 Pf. Gold	= c. 416.000 Denare			
1 Solidus	= c. 1.400 Nummi	= c. 5.800 Denare.		
1 Siliqua	= 48.2 Nummi	= 241 Denare.		
	1 Nummus	= 5 Denare.		

Mit einem Wunsch und einer Hoffnung möchte ich diese Darlegungen schließen. Der Wunsch ist, daß sich bald jemand finden möge, der 100 Diocletianus-'folles' opfert, um durch ihre Analyse für die Zeit um das J. 300 eine ähnliche Sicherheit zustandezubringen, wie es Brambach für die zwanziger Jahre getan hat. Die Hoffnung ist wiederum, daß die Papyri, die uns schon die Relationen AU:AR und Billongeld: AE (für 338) gegeben haben, auch die Relation AU:AE schenken werden. Erst wenn diese Voraussetzungen vorhanden sind, kann das oben angeschnittene Problem mit einiger Sicherheit gelöst werden.

[1] Bei einem Silberwert von 1/18 des Goldes, Mickwitz, *Die Systeme des röm. Silbergeldes im IV. Jhdt. n. Chr.*, Soc. Scient. Fennica, Comm. hum. litt. vi. 2 (Helsingfors, 1933), S. 7 ff., und einem Kupferwert von 1/3700 ist 1 Gr. Silber = 206 Gr. Kupfer. 98 Prozent von 149 Gr. ist 146 Gr. Kupfer = 0,71 Silber: summa 3,71 Gr. Silber. Mit dem von Giesecke vorgeschlagenen Wert von für das 10 Gr.-Stück 4 Denaren würde sich diese Rechnung unvorteilhafter stellen. Einer Siliqua würde 188 Gr. Legierung und 4,6 Gr. Silber entsprechen. Es kann dies als ein Argument gegen seine Hypothese betrachtet werden.

[2] Wenn wir dieselbe Berechnung für die Relation 1 nummus = 10 Den. durchführen, entspricht 1 Sil. 72,5 Gr. der 2-prozentigen Legierung. Das sieht an sich nicht übel aus. Der Kurs des Goldpfundes springt aber dabei auf c. 720.000 Den. hinauf, was nicht gut möglich ist.

THE REIGN OF THEODOSIUS I: HISTORY AND COINAGE

J. W. E. PEARCE

(*Plate XIX*)

OUR literary evidence for the reign of Theodosius is neither so full nor so well informed that we can afford to neglect any other source by which it may be confirmed, supplemented, or corrected. We have such a source in the coinage, which is at once contemporary, continuous, and—if we can interpret it aright—absolutely trustworthy. Correctness of interpretation will generally depend upon the number of coins examined.

In these short notes I can touch upon only one or two of the most obvious ways in which the evidence of the coinage may be of use to history.

Throughout the reign of Theodosius there were three, sometimes four, Augusti, legitimate or usurpers, ruling or titular, and according as they struck or refrained from striking their own types in association with the names of their co-regents, or according as they used or refrained from using in a colleague's obverse legend the conventional distinction which Prof. Alföldi calls *das Zeichen des Rangjüngeren*, we have in their coinage a continuous record of their mutual relations. As, again, each Emperor possessed several mints at which he struck his own special types, we have in the mint-marks a means of determining the extent of his authority.

I have here summarized this evidence in its bearing upon:

1. The relations between Theodosius and his various co-regents.
2. The political status of Illyricum.

THEODOSIUS I AND GRATIAN

In the last issues of Gratian's reign the coinage of Treveri and Constantinople alike still proclaimed the political harmony existing between the Emperors, yet personally they were at that time—to use Seeck's expression—on terms of 'sheerest opposition' to one another. According to Seeck Theodosius treated his senior Augustus with studied disregard.

Professor Alföldi in his account of the Siscian mint remarks on the absence of Arcadius's name in the coinage struck there by Gratian,

and suggests either that there was a slight cessation in the activity of the mint or that the accession of Arcadius really took place after Gratian's death, in accordance with a less well authenticated tradition which places it on the 9th of September instead of on the usually accepted 19th of January.

But coins of Theodosius issued at Constantinople in the name of the four Augusti—Gratian, Valentinian II, Theodosius, and Arcadius (they are commonest for Arcadius)—prove the correctness of the earlier date. Need we seek a special reason for the absence of Arcadius at Siscia when he appears to be absent from all Gratian's coinage? I can find no coin of Arcadius which can be proved necessarily to have been struck for him in the West during Gratian's lifetime. Among many coins of the three other Emperors, with mint-mark $\overline{\text{COM}}$ in the issues which include Gratian, I have met with but one of Arcadius from Milan, one from Thessalonica.

If Sig. Laffranchi is right in dating these coins after Gratian's death, then we must, I think, admit that Gratian did not strike for Arcadius, who figures so largely in his father's coinage. If with some other eminent numismatists we date them to Gratian's lifetime, we are still left to wonder why Arcadius was almost completely ignored.

Historians make much of the slight felt ten years later by the usurper Eugenius at the elevation of Honorius without consultation with him. The slight would be immeasurably greater if the elevation of Arcadius had not received the approval of Gratian, the senior Augustus, to whom Theodosius owed his throne. Can the coinage be taken to suggest this?

Let us turn to the coinage of Theodosius. At Vienna there is a solidus of Gratian (Plate XIX, 1), struck at Constantinople with reverse 'The Harmony of the four Augusti'. I found at The Hague the identical obverse, but with 'Theodosius' cut in place of Gratian's name (Plate XIX, 2). The reverse still shows four Augusti and commemorates Theodosius's *vota* V–X. Once more the identical obverse —in its altered form—meets us, this time at Dortmund, and the four Augusti have been reduced to three (Plate XIX, 3). The *vota* are still Theodosius's V–X.

The last coin shows that Maximus is not included among the Augusti recognized. It would seem, then, that Gratian's name was excised in his lifetime, while the reverse with its 'four Augusti' was still being struck. Unless we feel justified in summarily dismissing Plate XIX, 2 as a hybrid, we shall be forced to see in it a kind of *damnatio memoriae* of a still living but estranged colleague.

THEODOSIUS I AND VALENTINIAN II

Professor Alföldi in his work on Pannonia remarks that the unbroken legend on the obverse of an Emperor's coin is *das Zeichen des Rangjüngeren*. The tendency to such a distinction can be seen in a comparison of, for example, parallel coins of Constantius II, the Augustus, and Gallus, the Caesar. But clearly, when the relationship of senior and junior was well known and acknowledged, the form of legend on the coin was not important. At the time with which we are now dealing and for many years before, it would, however, be quite impossible to find the unbroken style of legend on the coin of a ruling Augustus. On the other hand, the boy Gratian and the boy Valentinian II often have it on coins struck for them by their respective father and elder brother, their natural guardians.

At the death of Gratian in 383 Valentinian II, then ten years old, became the senior Augustus. Yet Theodosius on all his Eastern bronze coinage (with one significant exception) invariably gives him the unbroken legend. His own son, Arcadius, also has it—all through Valentinian II's lifetime. The two issues which follow Valentinian's death now give Arcadius the broken legend, his younger brother, Honorius, the unbroken. The distinction is unmistakable and can only be intentional.

Must we not infer that Theodosius in his coinage is asserting a protectorate over his boy-colleague, the senior Augustus? In his eyes Valentinian II and his own son, Arcadius, stand in relation to himself on precisely the same footing.

The protectorate, implied in the coinage, was openly claimed in the speech of Themistius, prefect of Constantinople, which he delivered before Theodosius in 384. It must have been felt as only right and natural by Theodosius himself and his Eastern subjects. Indeed, at Milan itself, St. Ambrose can speak of Theodosius to Valentinian as *parens Clementiae tuae*, though the obligations of filial duty are, so far as I know, limited to the taking of good advice on church matters.

But Maximus, the powerful usurper in Gaul, was no less anxious to be adopted by the young prince as a father. 'Cum diceres quod Valentinianus ad te quasi filius ad patrem veniret', St. Ambrose again writes, addressing Maximus.

Now, the 'one significant exception' to the style of legend implying a protectorate seems to occur, as I shall presently show, immediately after the *entente* reached with Maximus in the late summer of 384. No doubt, as Seeck says, the relations between the three Augusti were

then defined and the assertion of a protectorate would have been impolitic.

Valentinian's own coinage meanwhile gives him the normal broken legend of a ruling Augustus. But in his last issue struck at Rome before the invasion of Maximus both broken and unbroken forms are found. It would seem that the imminence of the danger at length forced an acknowledgement of the need of Theodosius's protection.

From 387 to his death in 392 Valentinian was admittedly dependent on Theodosius, whose Eastern bronze coinage never allows this to be forgotten. Valentinian himself, as a reigning sovereign in Gaul, naturally strikes for himself with the appropriate broken form of legend, while Arcadius has normally still the unbroken form. In the Italian mints of Valentinian's former empire, now nominally restored to him, but actually controlled by Theodosius, both young princes have the broken form. To the Italians Valentinian was still their Emperor, and it was as politic as it was safe to grant him this shadow of a sovereignty over his shadow of an Empire. Thessalonica, as we should expect, follows the East.

To pass to another point: Zosimus states that Theodosius in 388 restored to Valentinian II all the dominions over which Valentinian I had ruled. To this statement the coinage would supply a useful corrective, if it were needed. The limits of an emperor's authority are marked out by the mints he controls. Valentinian strikes his VICTORIA AVGGG in the three Gallic mints, Theodosius his SALVS REIPVBLICAE in all the other mints of the Empire. A coloured map could hardly make the division clearer.

No doubt Seeck is right in seeing a rearrangement of the Empire in 388. Theodosius alone was the conqueror of Maximus, and, quite naturally and justifiably, it would seem, exploited his victory in the interests of the Theodosian House, giving Valentinian Gratian's former empire and setting Arbogastes to see that he did not pass its bounds; while he himself nursed Valentinian's former empire as the future inheritance of Honorius. This was the arrangement of a prudent father and—apart from the worthlessness of Honorius, which perhaps could not be foreseen—of a wise ruler. But of course it could not decently (to use Zosimus's phrase) be openly proclaimed by a sovereign who owed his throne to Gratian and, when shortly afterwards Valentinian died, the fiction of a quixotic generosity was safe from cavil.

THEODOSIUS AND MAXIMUS

Maximus asserted that Theodosius had approved of his usurpation. Whether or not he really believed this it is impossible to say. No

doubt he knew of the strained relations between Gratian and Theodosius, but it is not likely that he had any more solid warrant for his assertion. However, it was useful propaganda for the consolidation of his new rule and we find him striking both his siliqua-types in the name of Theodosius at Treveri. But the rarity of these in comparison with the vast number struck in his own name suggests that the pretence of harmony was not long kept up.

Perhaps the very remarkable coinage of Theodosius at this time may give the explanation of this. It shows that both Western and Eastern Illyricum have passed into his hands. There is no act of aggression here, else we should hear of it from other sources. It can only denote a measure of precaution, in full agreement with Valentinian's government, against possible danger from Maximus.

Presently Siscia and Thessalonica, the mints of Western and Eastern Illyricum, are again striking with the West. Meanwhile Theodosius strikes a new type in the East—his Æ 2 VIRTVS EXERCITI, his only issue in which he both (1) recognizes Maximus, and (2) gives Valentinian II the style of obverse legend which does not imply a protectorate. Is it a mere chance coincidence that this issue follows on the evacuation of the two Illyricums or shall we bring both into connexion with the *entente* of 384?

I can find no other certain evidence of the recognition of Maximus by Theodosius. Cohen (Max. 2) quotes, or rather misquotes, a coin in the Copenhagen museum as CONCORDIA AVGGGI with the Constantinople mint-mark. It has really - - - GGGGI, which is more intelligible. But the obverse shows signs of an alteration of the name, and – AVS for – AVG at the end of the legend clinches, to my mind, the certainty of a falsification. That I have found in about twenty museums only two coins struck for Maximus by Theodosius argues that the *entente* was short-lived.

I can find no proof in the coinage that Maximus sought, like Eugenius, to conciliate Theodosius after his occupation of Italy. We learn from an inscription that he ordered his subjects to celebrate the anniversary of Valentinian II's accession, and it seems to me possible that the very rare coins of Valentinian and Theodosius—there are none of Arcadius—with VIRTVS ROMANORVM 'Throne' type $\overline{\text{MDPS}}$ may have formed part of the issue struck in considerable numbers for Maximus and Victor. But this is a mere conjecture.

In this context it is worth while mentioning the comparative numbers of the siliquae issued by Maximus from Treveri and the Italian mints for himself and Victor respectively. The N. Mendip hoard may here be taken as typical. In it were 213 for Maximus,

10 for Victor from Treveri; 12 for Maximus, 21 for Victor from Aquileia and Mediolanum. This gives us interesting evidence for the approximate date of Victor's accession. But what—if any—conclusion are we to draw from the consistent numerical superiority of Victor in Maximus's latest issues? Is Victor to take the position in Italy which Theodosius later intended for Honorius?

THEODOSIUS I AND EUGENIUS

There is abundant evidence in the coinage of Eugenius of his efforts to win recognition from Theodosius. Although he continued the types of Valentinian II, yet the output of each emperor is in general easily distinguishable in the siliqua-issues from Treveri as 'Valentinianian' or 'Eugenian' respectively. My specimens (including many casts), on which I base this note, number 41 of Valentinian II, 78 of Theodosius, 69 of Arcadius, and 59 of Eugenius. Now, a careful inspection shows this curious result—that while the coins of Theodosius are divided between the ' Valentinianian' and 'Eugenian' with a distinct preponderance of the former, the coins of Arcadius are all 'Eugenian'. We seem forced to infer either that Eugenius struck in greater numbers for Arcadius (not for Theodosius) than in his own name (which seems purposeless and unlikely) or that many of Arcadius's coins were struck before the elevation or after the downfall of Eugenius. Eugenius left Treveri for Mediolanum in the spring of 393 and a later issue for Arcadius could not have taken place for another year and a half. But the coins of Arcadius clearly hang together and with those of Eugenius, and in a resumed issue late in 394 we should find coins of Honorius, which are lacking. I can see no way out of the difficulty but by supposing an issue chiefly or entirely in the name of Arcadius before Eugenius was called to the throne. It seems to me possible that Arbogastes, hoping to purge his responsibility for the death of the one young prince by a display of loyalty to the other who seemed marked out to succeed him, struck freely for Arcadius during the three months' interregnum. It must at least have been in men's thoughts that Theodosius might wish to follow the precedent of the great Constantine by sending his son to take up the Gallic command.

However we may explain the preponderance of Arcadius's coins, it is certain that Eugenius struck both for him and for Theodosius. I have noted four die-identities linking the usurper with Theodosius, five linking him with Arcadius in his issue from Treveri.

His march on Italy and occupation of Milan were a challenge to the schemes of Theodosius for his son Honorius; though, as in

theory Italy had been restored to Valentinian II, to whose possessions Eugenius claimed to be heir, hardly an open one. At any rate, Eugenius did not feel that the door was finally closed against conciliation. The evidence of the coins from Mediolanum is surprising. They are much less common than from Treveri. I have (mostly, of course, as casts) twenty-five of Eugenius, thirteen of Theodosius, and four of Arcadius which I can assign to this period. Out of these thirteen coins of Theodosius, five, and out of the four of Arcadius, one, have reverse die-identity with Eugenius. This would seem to show an even intensified effort on the part of Eugenius to demonstrate his friendly attitude to Theodosius.

It is important to note that, while at Treveri the Eugenian coinage was preponderatingly for Arcadius, at Mediolanum the proportions are reversed and more normal. The discrepancy certainly calls for an explanation, and, if a better than that which I have suggested above is forthcoming, I should welcome it.

The coinage of Theodosius takes no notice of the usurper.

THE POLITICAL STATUS OF EASTERN ILLYRICUM

A question of disputed boundaries is one which numismatics is peculiarly qualified to decide. When Valentinian II's known types are struck on coins with mint-mark $\overline{\text{TES}}$ up to 387 we are sure that then the mint belonged to him. But by that date the name of Thessalonica has disappeared from the gold coinage, our most useful source of evidence, and does not reappear until the reign of Theodosius II when the mint was certainly in the possession of the East. Our problem is to determine, if we can, whether the transference from the West took place during the time when, after the defeat of Maximus, Theodosius was in sole control of Valentinian II's former Empire as well as of his own. In the course of the following short sketch of the activities of the mint of Thessalonica between the years 379 and 395 I shall hope to show from the coinage that at no time during the reign of Theodosius was there any break in its political association with the West, except for its transitory Eastern period in 383–4. Here we are in welcome agreement with our literary authorities—Olympiodorus and St. Ambrose, whose evidence seems clearly to point to Western ownership at the time of Theodosius's death.

That it passed finally to the East was, I believe, the result not of political but of natural forces and it is useless to look for a date. The formal cession of Western claims by Placidia in 424 was merely the acceptance of a fact gradually accomplished years before.

The geographical position of Thessalonica rendered it at all times more accessible to influences from Constantinople than from Milan, and in the disturbed period with which we are dealing, which opened with the disaster of Hadrianople and was never free from alarms, these influences would be strengthened. It is hard to believe that Thessalonicans would not feel that their allegiance was owed rather to the powerful Emperor of the East, who alone could and, in fact, did protect them, than to their nominal boy-sovereign at Milan.

Even in the safer times before the defeat of Valens, while Thessalonica belonged unquestionably to the West, its mint shows peculiarities shared only by Constantinople. Both mints strike *vota*-coins with the order VX for XV, and the mint-mark TSE, by the side of CSS, shows a clear copying of Constantinople by Thessalonica. And a little later but still in Gratian's lifetime, Thessalonica strikes the purely Western gold type VICTORIA AVGG with marked variation from the normal in the type, the distinctive style of mint-mark THCOB, and obverse portraits from the hand or under the influence of Constantinopolitan artists (Plate XIX, 4).

From these instances it can be seen that the mint of Thessalonica is as much in touch with the East as it is out of touch with its Western sister-mints. Little wonder that later St. Augustine, writing of the events of 387 when Valentinian II fled for refuge from Maximus to his own Thessalonica, can say: 'Theodosius . . . Valentinianum in *sui* partes imperii excepit pupillum, paterno custodivit adfectu.' I doubt if any of his readers would have noticed his unintentional inaccuracy.

The coinage furnishes an excellent commentary on the whole of this short but pregnant passage.

In the following brief survey of the coinage struck in Eastern Illyricum between the years 379 and 395 we shall find many traces of the influence and even of the co-operation of Constantinople, but proof throughout of continued political association with the West.

At the very outset of his reign in 379 Theodosius was in possession of Eastern Illyricum with his head-quarters at Thessalonica. Yet his coinage at this time was the purely Western VICTORIA AVGG, and its mint-mark TESOB, falling into line with other mint-marks of this type struck by Gratian, suggests a common, and a Western, authority for all alike. To speak of him as receiving in addition to the former Empire of Valens the dioceses of Dacia and Macedonia seems to me to be unwarranted. Was he not merely in military occupation, as an ally, of territory still marked by the coinage as Gratian's? In any case, his occupation came to an end in the next year.

But in 383 a real cession—this time of both the Illyricums—is plainly shown by the coinage.

Theodosius at the time of Gratian's death was striking distinctive Eastern types throughout his Empire in the names of Gratian, Valentinian II, himself, his wife Flaccilla, and his son Arcadius. Among these types were *vota*-coins, bearing numbers respectively applicable to all the Emperors and including XXX–XX, which, though according to custom struck in the names of all the emperors, were, of course, appropriate to Gratian alone. All these coins are now found struck at Siscia and Thessalonica—but not with Gratian's name or Gratian's *vota*-numbers. Clearly the two Illyricums have passed to Theodosius after Gratian's death.

Professor Alföldi pointed this out in his *Untergang der Römerherrschaft in Pannonien* and hinted at its military significance, though as his concern was with the 'Partition of Illyricum' and not with the policy of Theodosius he did not enlarge upon it. We seem to have here quite an interesting little contribution of numismatics to history, and to wave it aside with the remark, that 'even if Alföldi is right, the change did not last long' is hardly an adequate acknowledgement. Indeed, the speedy withdrawal of Theodosius from the occupied provinces, as I have already suggested, at about the time of the *entente* with Maximus adds to, rather than detracts from, the significance of their occupation.

Up to the point we have reached, *c.* 384 or 385, the coinage has shown us Western and Eastern Illyricum always striking together, whether with the West under Gratian or with the East under Theodosius.

In the next period, which ends with the flight of Valentinian II to Thessalonica, though not always striking together they both strike distinctively Western types, and the (apparently) latest issue, the Æ 4 'Two Victories' type, is found from Rome, Aquileia, and Thessalonica, with this difference, however, that at the Italian mints the legend is 'The Victory of the three Augusti', at Thessalonica, 'The Victory of the single Augustus'.

We come now to the last—the post-Maximus—period. Valentinian II has been sent to Gaul, Theodosius at Milan rules all the rest of the Roman world, striking his new Æ 4 SALVS REIPVBLICAE type in all its mints. This is the last issue of the reign signed with the name of Thessalonica. It tells us little that is useful for our present purpose. In its unbroken legend for the two young emperors it differs from the Italian, and goes with the Eastern mints, but this no more proves now that it belonged to the East than it did before,

when it was striking the purely Western 'Two Victories' type. We must look elsewhere for evidence, and we find it in the gold.

Theodosius's typical 'Concordia' series ends at Constantinople (mint-mark CONOB) with *vota*-coins of Arcadius V–X and of Theodosius X–XV. Valentinian II has parallel coins without *vota*. In all these Constantinople's throne is not, as previously, adorned with lions' heads. The *vota*-figures limit the issue to not later than January 388 for Arcadius and January 389 for Theodosius, but no doubt, I think, they all precede the advance against Maximus in the summer of 388.

Henceforth Theodosius, ruling the whole of the Roman world eastwards from Italy, continues his 'Concordia' type, but from Thessalonica, instead of from Constantinople, and with mint-mark COMOB, instead of CONOB.

The Thessalonican workmanship is easily recognized by the portraiture, by the dots above the fibula (a characteristic noticeable from Valentinian I onwards), and by the peculiar form of the letter G with its long pendent 'tongue' (cf. Plate XIX, 5, 6). But co-operating with Thessalonica are artists from the Constantinople mint. The reverse of Plate XIX, 7 is in *officina*-letter and form of G pure Constantinopolitan except for the mint-mark, while the obverse shows a portrait with the Thessalonican G in the legend, but in features suggesting, I think, the influence of Constantinople.

But though we have clear proof that Eastern has supplanted Western authority at Thessalonica—indeed, we did not need the coins to tell us that—the coins seem to me to supply equally clear proof that *de jure* the political status of Thessalonica, and so of Eastern Illyricum, remained unchanged. The 'Concordia' type appears also at Aquileia and Mediolanum, where it is certainly no sign of political annexation; but it is the positive evidence of the mint-mark COMOB which in my opinion is decisive. 'COM auf den Münzen aus westlichen Prägstätten heißt *comitis* und bezieht sich auf den bezeichnenderweise nur aus dem Westreich bekannten *Comes auri* . . . er besorgte offenbar die Goldlieferung an die Münzstätten des Westreiches.' Thus Regling; and COMOB, the successor of COM, remained to the end the distinctive mark of solidi coined in the Western empire. Thessalonica still, in theory, belonged to the West. To reinforce this conclusion from another angle: Theodosius at the end of his reign was striking with absolute regularity the Æ 2 GLORIA-ROMANORVM 'Emperor standing with standard and globe' at all his six Eastern mints. But he does not strike it at Thessalonica.

The 'Concordia' *A*-type overlapped the accession of Honorius in January 393, and soon after this the Thessalonican mint was transferred to Sirmium where Theodosius was concentrating for his campaign against Eugenius. Here a new 'Victory' type, 'Emperor trampling on captive', destined to be for many years the distinctive Western *A*-type, is struck. Its course at Sirmium, embracing the end of Theodosius's and the beginning of Arcadius's reign, passes from VICTOR–IA AVGG through VICTOR–IA AVGGGA, VICTORI–A AVGGGA to VICTORI–A AVGGA. The point of connexion with the 'Concordia' type is seen in Plate XIX, 8 (with which compare the Theodosius no. 4597 of the Trau catalogue), and 9, 10. These obverses are Thessalonican, but Constantinopolitan co-operation is seen in Plate XIX, 11, 12, and for the last three reverse varieties enumerated above Constantinopolitan artists are alone responsible. With VICTORI–A AVGGA Arcadius and Honorius alone appear. If we contrast the portraits of the brothers shown in Plate XIX, 13, 14 with those of 15, 16, we must be struck by the increased relative importance of the Honorius of no. 16. Presumably Theodosius has died and Honorius rules in the West. But these coins struck in a Western mint are the handiwork of Constantinopolitan moneyers! Of course they were soon withdrawn and boundaries between East and West that did not exist for Theodosius became necessary again for the divided empire. But we know, and I think the coinage helps us to understand, the friction that now arises between the East, to which E. Illyricum belonged *de facto*, and the West, to which it belonged *de jure*. Up to this point—the death of Theodosius—the coinage has, I think, clearly stamped Thessalonica and with it an undivided Illyricum as Western—in name. To enforce that claim after his death was, however, impossible, and even while Stilicho was dreaming of it, Eutropius could appoint a *magister militum per Illyricum*. The West lost nothing when the status of eastern Illyricum was finally regularized by its formal cession to the East by Placidia in 424.

THE MINTS OF THE ROMAN EMPIRE

KARL PINK

IN the beginning were the mints. The truth of this dictum is a corollary to the origin of coinage. Coinage is born of the practical objects of trade and was therefore struck at once in all places where business-life on the large scale reigned, that is to say, in the harbours and trade-centres of Asia Minor. Gradually, however, one commercial city gained the upper hand of another, whether by commercial superiority or for political reasons. Its money then conquered that of its rivals and it won a kind of monopoly of coinage. As an instructive example we may take the fortunes of the Athena tetradrachm, the *Γλαῦκες*. In the sixth century they were still wrestling with the *Χελῶναι* of Aegina and the *Πῶλοι* of Corinth. But after the Persian War the picture changes. Athens wins her hegemony. Under the pressure of the Delian Confederacy mint after mint closes, Aegina herself last of all. The only exceptions are the emergency issues of generals or of certain frontier-posts and fleet-stations such as Samos. But, when in the Peloponnesian War Athens loses her supremacy, her currency suffers a like defeat—and many mints reopen—and the process is extended after the Peace of Antalcidas. This is but one example of many. All show the workings of those laws that determine the fate of the world, the changing play of centrifugal and centripetal forces—the *Νεῖκος* and *Φιλία* of Empedocles, the *Γένεσις* and *Φθορά* of Aristotle.

The realization of this truth will help us to understand the fortunes of the mints of the Roman Empire. When Augustus after renouncing his proconsular power became Emperor as 'Imperator' and 'tribunus perpetuus' *de facto*, he had among other things to regulate the rights of coinage. Here as ever he maintained the fiction that characterized his whole policy—the fiction that the Republic was still in existence. For the time, owing to the conditions of war, gold and silver were struck by Augustus in Spain, Gaul, and the East. The right of coinage was certainly exercised by Roman generals abroad even before the time of Sulla, and can in fact be traced back to the same right as exercised by the generals of the Athenian Sea-League and by the Satraps. It was on this right that Augustus built his system of coinage. For some years the Senate continued to strike in the precious metals; thereafter only *aes* was still struck in Rome with the famous S C as mark of the authority of the Senate—a mere sign

without legal importance. Whereas Tiberius loyally left the arrangements of his adoptive father unaltered, Caligula abandoned his scruples and struck the precious metals too in Rome. As long as Nero reigned constitutionally, the Senate was able to assert its right of coinage. But when the Emperor had thrown off his tutelage, he struck himself and reopened the mint of Lugdunum to relieve that dearth of *aes* which had led to the evil of countermarking.

On the fall of Nero followed the distress of the Civil Wars. Clodius Macer strikes in Africa, the party of Vindex in Gaul, that of Galba in Spain, that of Vitellius in Upper Germany. It is characteristic that during the disorders of the Four Emperors' Year work went on in each and every available mint, and that the Senate could refuse Otho the issue of *aes*. Vespasian's first issue, again, was a war coinage at Antioch. As he had still to secure his empire, he was thrown back on foreign issue. But gradually the gentle influences of peace came to bear on the coinage. One mint after another closed—last of all, Lugdunum under Domitian. Nothing could be more significant of the consolidation of the Roman Empire than the fact that, with the exception of quite a few unusual Eastern issues, the quiet years of the second century saw coinage restricted to Rome.

With the death of Commodus, 193, begins a new chapter of Roman history—a chapter of bloodshed and unrest. The pretender Pescennius Niger rises in the East and exercises the old right of the general to strike in precious metal in his province. His mint is Antioch. Severus, after defeating him, at first continued the issues of Antioch for the pay of his troops, but soon closed this silver coinage. When Clodius Albinus was proclaimed Augustus in Gaul he had his money struck at Lugdunum. Again the coinage vanished with his death. Severus, among other preparations for the Parthian War, sent Roman mint-employees to Antioch, who struck silver there, but only till the end of the war. Similarly Elagabalus, after the victory over Macrinus, struck for a moment in Antioch, and then again in Nicomedia, when he found himself committed by a protracted illness to setting up his court there. With his entry into Rome his provincial coinage disappears. Alexander made no use of his right of foreign issue—it still ranked as a measure of emergency. But this feeling had been growing steadily weaker, and when Gordian III set to work to equip his great expedition against the Persians, he at once arranged for the issue of silver at Antioch, and also opened a new provincial mint at Viminacium. Philip, while still in the East, struck a commemorative coinage at Antioch and

marked its tetradrachms with the legend MON VRB—to show that it was Imperial coin. This was the first step towards the equalization of this mint, which henceforward continues working, with Rome. From the same Emperor dates the practice of mentioning the *officinae*. Gallus turns the emergency issue of Viminacium into a second mint of convenience which passes later to Lugdunum. The door was now open to the erection of new mints. Gallienus made an extensive use of the new principle, opening new mints at Siscia, Cyzicus, Milan, and perhaps Tripolis. The Gallic Emperors strike not only in Lugdunum but also at Cologne and perhaps at Treviri; Aurelian opens the issues of Serdica. In this time we find the first modest attempt to give the mint signature. The great reformer Diocletian was the first to change the conditions existing *de facto* to *de iure*. After the nomination of the Caesars and the division of the Empire in 293 all mints receive instructions to sign, all are placed on a level with the Roman and, like it, all strike all denominations. To answer to new requirements new mints are opened beside the old in each quarter of the Empire, two each for the Augusti, one each for the Caesars: for Diocletian, Heraclea and Nicomedia, for Herculius, Ticinum and Aquileia, for Chlorus, Treviri, for Galerius, Thessalonica. Under Constantine I are added the great mint of Constantinople, the capital of the East, Sirmium, and Arelate. We omit the fortunes of one or two of the minor mints.

Little by little the new Empire founded by the genius of Diocletian verges, like its predecessor, to its decline. The sands of Rome run out. Stronger ever grows the pressure of Germans in the north and Persians in the east. After the fall of the Danube *limes* at the end of the fourth century, one mint after another closes and at the end of the Roman Empire only two mints, Rome and its successor Ravenna, and the Eastern centre, Constantinople, survive.

Even in the Constantinian epoch we must not suppose that all the mints kept on striking at the same time. Continuous issue was only for the major mints; the lesser mints change and shift. To take one special case, the gold required for campaigns often accompanies the Imperial court.

This sketch of the origin and change of mints could not have been drawn with such thoroughness had it not been for the keen research devoted to the subject by numismatists of all lands during the last few years. This line of research is indeed quite modern. Our master, Eckhel, whose portrait adorns the first two volumes of the English *Numismatic Chronicle* in the days when it was still called *Akerman's Numismatic Journal*, and to whom Head dedicated his great *Historia*

Numorum, has only a few lines to give to mints in his *Prolegomena* and in his *Treatise on Coins of the Later Period*. Not till 1860 did two numismatists, De Salis in London and Missong in Vienna, independently discover the land of mint-research. Since their time both centres, London and Vienna, have continued busily at work on this great task, while other countries have added their contributions—France through Mowat and Maurice, Italy through Laffranchi, and Hungary through Alföldi.

For the first century of the Empire it has been the studies of Mattingly and Sydenham in their Handbook that have specially sharpened our eyes to detect the places of issue. Mattingly in the first two volumes of the British Museum catalogue has further refined our knowledge. The second century offers little or nothing to illustrate our theme. For the third century I myself in a number of studies have tried to throw light on the question of the re-institution of the mints. For the later Empire Voetter has already laid the foundations. But further work of painstaking and thorough character is required. Webb is often sound in his attributions, but, in the absence of the material in Vienna, his work can only be a torso. In this sphere I hope for great advances from the studies of Elmer, at the moment, alas, on military service—*inter arma silent musae*. The scattered and monotonous material of the declining Empire has been published in a useful preliminary summary by Pearce, partly based on the studies of the late Baron Koblitz. Apart from these basic works there is an abundance of shorter articles, too many to detail here, but of serious value to the subject. But much still remains to do.

If we are ever to give a final picture of the general development of Roman Imperial coinage, the coin material, above all, must be available in the completest possible form. Such a collection, indeed, could only be achieved by the international co-operation of the national coin cabinets, each of which would have to embrace the private collections of its country. The prospects of such an enterprise are not great in these stormy times. But, even as things are, a mass of preparatory work could be achieved by detailed researches. But we need a unity of method, such as I have tried to indicate in my essays on *The Construction of the Roman Imperial Coinage*. Most vital need of all, we must purge our material through and through, particularly where it comes from Cohen and Gnecchi, and finally cancel their long series of ancient forgeries and the many errors that they contain. After that, an exact division over mints might be attempted—with history always at our hand to guide us.

A great aid—often the sole aid—to such rearrangement lies in the hoards. Of late years, it is pleasant to observe, important finds have been carefully described by experts, thus supplying a reliable basis for research. The *Numismatic Chronicle* especially lays great stress on such publications. In other countries too, however, there is a movement on foot to make the right use of such treasures. Director Regling, whose early loss we deplore, has made a peculiarly valuable contribution to mint-arrangement in his masterly descriptions of hoards. But it must not be forgotten that the profit to be gained from a good description of a hoard is exactly balanced by the damage done by a bad one. Hence the need for more than usual care in such work.

On these lines the picture of Roman coins should gain little by little in precision, till probability reaches the height which we may call certainty.

Of the importance of mint-research there can surely be no doubt. It is history above all that reaps a rich harvest in this field. Where other sources fail, the true account of the coinage can illuminate the development of events in time and place. Elmer, in his doctorate thesis on the reign of the Emperor Eugenius, has shown how the historical events can be deduced from the places and order of the issues. Again, the question of the attribution of different parts of the Empire to the sharers in Empire can often only be solved through the study of mints. The erroneous old belief in a mint at Tarraco, for example, at the end of the third and the beginning of the fourth century has led to false conclusions about the possession of Spain under Maxentius. Iconography, too, can only work to the best effect when we can establish where the Emperor was stationed, where his authentic portrait was immediately available. In the last place numismatics itself will profit, for only through mint-research can the regular coinage be separated from the hybrid, and the development of the Imperial coinage be expressed correctly in time and place.

The recognition of the importance of coins as sources of ancient history is steadily making way. But with this recognition comes the imperative challenge to us numismatists to do all that we can to purify our sources and keep them pure. The times are past when coins were a subject of aesthetic amusement or fantastic combination. There is no longer justice in Mommsen's complaint, in his *History of Roman Coins*, that numismatists did nothing for their own science. We are still waiting, however, for the great work that will present the coins in clear and certain order to the historian and all who are

concerned with the ancient world. For Greek numismatics the goal is still distant; for Roman, particularly for Imperial Roman, it is not so hard of attainment. Once reached, it will represent an important step in the rebuilding of Roma Aeterna.

[*I am indebted to Mr. Mattingly for the translation into English.*]

ΙΤΑΛΙΚΟΝ ΝΟΜΙΣΜΑ

P. RYL. GK. INV. 650[1]

C. H. ROBERTS *and* H. MATTINGLY

13·8 × 27·7 cm. Along the fibres.

Διονύσιος *Ἀπίωνι*
χαίρειν·
προσέταξεν ἡ θεία τύχη τῶν
δεσποτῶν ἡμῶν τὸ ἰταλικὸν νόμισμα
5 *εἰς ἥμισυ νούμμου καταβιβασθῆναι· σπού-*
δασον οὖν πᾶν τὸ ἰταλικὸν ἀργύριον
ὃ ἔχεις ἀναλῶσαι ἀγοράσας μοι εἴδη
παντοδαπὰ καὶ π[ο]ίας εὑρίσκεις τιμῆς.
τούτου τε ἕνεκα ἀπέστειλα πρός σε
10 *ὀφφ(ικιάλιον)· προγίνωσκε δὲ ὡς εἰ βουληθείης*
κακουργίᾳ τινὶ χρήσασθαι οὐκ ἀν-
έξομαί σου. (2nd hand) *ἐρρῶσθαί σε πολλοῖς χρόνοις*
εὔχομαι, ἀδελφέ.

Verso. (along fibres).

(3rd hand) *Φαρμοῦθι η̄ παρέλαβα τὴν ἐπιστολὴν π(αρὰ) τοῦ ὀφ-*
φ(ικιαλίου)
15 (4th hand) *Διονύσιος* *Ἀπίωνο(ς) Ἀντινοέ(ως) βοηθ(οῦ)*
Διονύσιος

4 *ϊταλικον* P., and in 6 10 *βουληθειης* corr. from *βουλειθειης*

TRANSLATION

Dionysius to Apion, greeting. The divine Fortune of our masters has ordained that the Italian coinage be reduced to the half of a *nummus*. Make haste, therefore, to spend all the Italian silver that you have on purchases, on my behalf, of goods of every description at whatever price you find them. For this purpose I have dispatched an *officialis* to you. But take notice that should you intend to indulge in any malpractices I shall not allow you to do so. I pray, my brother,

[1] It should be emphasized that the numeration of this document, which will eventually appear in the fourth volume of the Rylands catalogue, is only temporary: until its appearance in that volume, it is requested that in any reference the description be given in full, e.g. P. Ryl. Inv. 650. Mr. Roberts is primarily responsible for pp. 246–249, l. 16, Mr. Mattingly for the remainder of the article.

that you may long be in health. (*Verso*) I have received the letter from the *officialis* on the 8th of Pharmuthi.

NOTES

4. For the opening words cf. P. Oxy. 2106. 2–3.

5. *καταβιβασθῆναι*: *καταβιβάζειν*, 'to bring down', 'to lower', is regularly used metaphorically, although not in the sense 'to depreciate', of which this text appears to provide the first instance; it is, however, an easy enough development from its other usages. In the only other place in which it occurs in the papyri (P. Lond. iv. 1349, 27) it means 'to remove from office'. For use of nummus = sestertius, cf. a metrological frg., shortly to be published as P. Ryl. III . . ., [*τὸ δὲ*] *τροπαϊκὸν ἔχει* [*νούμ*]*μους δύο*.

7. *εἴδη*. Frequent in this sense in the papyri, and contrasted with money, e.g. *B.G.U.* 276, 21 (2/3 c.) *τὴν τιμὴν τῇ μητρί μου ἀποκατάστησον ἢ τὸ εἶδος*.

10. *ὀφφικιάλιος*. This word occurs frequently from the third century onwards, v. Preisigke, *Wörterbuch*, s.v.

10–12. *εἰ βουληθείης . . . ἀνέξομαι*. This use of the optative, followed by an indicative present or future in the main clause, to express a possible contingency, is common in the Byzantine period and is also found earlier, especially with certain stock phrases of which *εἰ βουληθείης* is one, cf. R. C. Horn, *The Use of the Subjunctive and Optative Mood in the Non-Literary Papyri* (Philadelphia, 1926), p. 161. For a parallel case, v. P. Lond. 234 (ii, p. 286), 16–59 (*c.* A.D. 346), which also contains the suggestion of a threat.

The most obvious *κακουργία* open to Apion would be to charge Dionysius for his purchases at a rate somewhat higher than the market price.

12. This closing formula is common throughout the third century. Vide Exler, *A Study in Greek Epistolography* (Washington, 1923), p. 76.

14. This line was presumably written by Apion on receipt of the letter: such an incriminating document may well have been returned to its writer, who at the same time would have wanted a receipt.

15. *Διονύσιος* is here part of the original address and occurs twice, perhaps, because the papyrus was folded double. Or, if this address is that written by Apion on returning the letter to Dionysius, we should expect *παρά* to precede the name, but of this there is no trace.

Lines 3–7 of this text were quoted 'from an unpublished private letter of the fourth century' by P. M. Meyer in his note to *Juristische Papyri*, 73, 7, and since then have been the subject of much discussion among students of numismatics and economic history; as the complete text has now turned up among the Byzantine papyri in the John Rylands Library (where it has lain for at least twenty-five years), it seems worth while to publish it without any further delay. For although it gives no further information about the Imperial

edict itself, the document as a whole enables us to put this edict in its correct setting and in itself constitutes an amusing specimen of official correspondence. Meyer does not give the source of his information; but since the identity of the document does not appear to have been recognized since it has been in England, we may assume that the letter was seen and copied in some dealer's shop in Egypt.

Date. The document, which is preserved intact, is written in a good cursive hand of official type; unfortunately it bears no date and, as a date in the late third century is, on palaeographical grounds, just as likely as one in the early fourth century, the exact period to which we assign it must depend on the interpretation given to ll. 3–7.

Contents. The writer of the letter is a certain Dionysius, clearly a government official, not only because he possesses knowledge of the edict before its publication, but because he has at his command an *officialis*, who was the bearer of this letter; the recipient is Apion, described on the verso of the text as a *βοηθός*, a minor civil servant or messenger in the public service, and who, as the whole tone of the letter implies, is in a subordinate position to Dionysius. He may also stand in some personal relation to Dionysius (possibly he was the latter's steward), as he appears to have moneys belonging to him. Dionysius has heard that an Imperial edict has been promulgated to the effect that the Italian *nomisma* (elsewhere described as *ἀργύριον*) is being depreciated to the value of half a nummus (for the meaning of these terms see below), the effect of which would clearly be that the nominal price of goods would rise—eventually, we may presume, to as much as double the price current before the edict was issued. Dionysius intends to take advantage of his inside information to buy as extensively as possible before the edict becomes generally known and so, no doubt, reap a substantial profit for himself. Instructions to this effect are sent to Apion together with a warning not to engage in any crooked dealing, the opportunities for which are obvious. Unfortunately, both names are too common to provide any clue to their owners' identity, nor is anything known of the provenance of the papyrus.

In these fields we numismatists are like Virgil's travellers in the Underworld: 'ibant obscuri . . . per incertam lunam sub luce maligna'. But, in light or in dark, we must essay the journey.

Let us begin by taking stock of our certainties:

(1) *τὸ Ἰταλικὸν νόμισμα* (or *ἀργύριον*)—the two are synonymous here—can only denote 'coinage', 'money', in general, no specified denomination.

(2) The 'Italian' money is contrasted by implication with money of some other kind. The 'Italian' must be the Imperial money, in contrast to the local money of Alexandria.

(3) The *νοῦμμος* is the name of a definite monetary value, perhaps of a definite coin.

(4) The nominal value of the 'Italian' money is reduced [a measure of deflation].

The points that we need most to determine are two: first, the date of our papyrus, and, second, the degree of reduction applied to the 'Italian' money, and its meaning. At this point it will be well to have before us the evidence of another papyrus (Stud. Pal. 20. 85, ll. 4, 9, 18) that has something to say of 'Italian' money; it is dated to the ninth year of an indiction and quotes an uncertain number of talents *ἐν νούμμοις Ἰταλικοῖς* and again 50 talents, *ἐν Ἰταλικῷ νομίσματι*. The indiction date must necessarily be later than A.D. 296; but, while some would date it A.D. 305–6, others place it an indiction later, 320–1.

If we attempt now to combine the evidence of the two papyri and apply it to dating, we shall admit at once that references to Italian money continue after A.D. 296, but shall hold firm to the conclusion that a contrast is implied with the local coinage of Alexandria, which ended in that year. Only during the period of transition from local to Imperial money has the phrase *Ἰταλικὸν νόμισμα* a natural meaning. There are two strong reasons for dating our papyrus before rather than after A.D. 296, the date of the great reform of the coinage by Diocletian:

(1) The process of devaluation is a single one—*εἰς ἥμισυ νούμμου*. This should imply that actually only one denomination is in question. This condition holds good before A.D. 296, when the only coin in universal circulation was the XX·I piece of the reform of Aurelian. It does not hold good after A.D. 296, when the follis with laureate head and the successor of the XX·I, still with radiate head, circulate side by side.

(2) The movement after A.D. 296 seems to be towards inflation, not towards deflation. The follis, while retaining its distinctive types, undergoes a series of reductions in weight from A.D. 306 onwards. This must surely mean that the same nominal value was expressed in coins of decreasing weights, not that a lower nominal value was assigned to a standard coin.

The former argument might perhaps be evaded,[1] the second seems unanswerable.

[1] It might be argued that *εἰς ἥμισυ νούμμου* means 'to the half of the value in the case of each coin'.

The *Ἰταλικὸν νόμισμα* of our papyrus, then, must denote the XX·I coinage of the reform of Aurelian that ruled the market from A.D. 274 to A.D. 296. The appearance of X·I instead of XX·I on coins of Tacitus and Carus, either exactly or approximately like the XX·I piece, has already led to the guess that attempts were made to reduce the nominal value of that coin. We might conceivably refer our papyrus to the joint reign of Carinus and Numerian, but it is more probable that it actually belongs to the reform of A.D. 296 or to the period just preceding it. The 'Italian' money is reduced to the half of a nummus. Mr. Mattingly has already suggested[1] that nummus here bears its most natural meaning of sestertius, and we see no reason to-day to go back on the suggestion. In the same paper he assigned to the XX·I piece an original value of two sestertii; but it may be felt that our papyrus suggests, though it does not explicitly state, a reduction of value by precisely a half, and, in that case, the estimate of the value of the XX·I piece must be revised to correspond.

If our argument is sound, our papyrus offers a very satisfactory solution of two well-established, but hitherto imperfectly understood facts.

(1) In the reform of Diocletian a coin with radiate crown, without XX·I but in general like the XX·I piece, is still struck beside the new follis. This will be the piece reduced to *ἥμισυ νούμμου*, while the follis will represent the original value of two (or one) sestertii.

(2) In A.D. 301 Diocletian issued his edict *De Maximis Pretiis* to remedy a sharp rise in prices, caused, as Lactantius reports, by *variae iniquitates* of the Emperor himself. We can now suggest a reasonable explanation of these events. The reduction in value of the XX·I piece led, as our papyrus shows, to a rush to exchange coins for commodities and, hence, to an abrupt rise in prices. This was no doubt the direct opposite of what Diocletian intended, but the rise could not be checked until the masses of old coin had been cleared off. The only way to set the new coinage going at once would have been for the Government to bear the whole cost of the reform and to redeem the old coinage at its face value.

Dr. Heichelheim has proposed to see in our papyrus a doubling of the value of the gold piece as expressed in denarii. I cannot myself believe that *νόμισμα* here has its later meaning of 'solidus', and cannot find in our papyrus the meaning that Dr. Heichelheim would assign to it. Dr. Mickwitz admits that the measure is one of deflation, but thinks that it applies only to Egypt and was designed to check a local inflation which had outrun the general inflation outside.

[1] *Num. Chron.* 1927, pp. 219 ff.

Apart from the arguments already adduced for a date before A.D. 296, it is surely arbitrary to limit an edict affecting Imperial coinage to a single province, nor is it in any way certain that the temporary deflation which Dr. Mickwitz would trace in Egypt actually took place.

Here for the time we must leave this invaluable but most provocative document. The modest claim of Livy (v. 21) seems to be most appropriate to the student: 'sed in rebus tam antiquis, si, quae similia veri sint, pro veris accipiantur, satis habeam'.

MINIMI, RADIATE AND DIADEMED: THEIR PLACE IN ROMAN AND POST-ROMAN CURRENCIES

C. H. V. SUTHERLAND

THE small and usually barbarous coins which are imitated from Roman prototypes, and to which the name minimi has conveniently been given, have recently been the object of increasing attention among students of Romano-British numismatics. It was, perhaps, the finding of the now famous Lydney hoard of so-called 'diademed' minimi that first showed clearly how important, historically, this class of coinage may be, and the attention which the Lydney minimi turned towards this type of coinage has been stimulated by the Verulamium hoard of radiate minimi. The latter hoard raises problems of essential importance; and, as the evidence bearing on minimi in general has recently been considerably increased, the time seems suitable for a summary survey of the existing evidence. In this way it may perhaps be possible, first, to sketch, even if not draw exactly, the limits of time during which both radiate and diademed minimi circulated in Britain, and secondly, to examine the part that these coins played in the currency of the province both before and after the evacuation.

Hoards will provide a starting-point. Records exist of some nineteen hoards containing radiate minims, and of three containing the diademed type. Of the two types, the radiates are copied from the earlier prototypes, and may therefore be taken first. The hoards in which they occur fall into two classes: (1) those which contain a proportion (often a major proportion) of regular or orthodox issues in some sort of a series, and (2) those in which regular issues (if they occur at all) form a usually scanty proportion of the whole hoard, and, quite apart from wear and tear, show little coherence as a series; there are necessarily one or two hoards which lie with certain ambiguity on the borders of each class. Analysis of hoards in the first class is capable of giving the upper limit for the circulation of radiate minimi. Hoards from Great Chesters[1] and Brougham,[2] with two others from Segontium,[3] or Carnarvon, show a phenomenon common to each, namely, the inclusion of a varying number of regular issues

[1] *Arch. Ael.* xxiv (1903), pp. 51, 63.
[2] *Transactions of the Cumb. and Westm. Ant. and Arch. Soc.* 1911, p. 209.
[3] *Y Cymmrodor*, xxxiii (1923), pp. 68, 118; *Arch. Camb.* 1922, pp. 291, 312.

of the third quarter of the third century side by side with radiate minimi. The Great Chesters hoard, for example, contained 27 such issues, opening with a solitary Valerian, continuing with a few each (never more than 5) of Gallienus, Postumus, Marius, Claudius, and Quintillus, and ending with 12 of the Tetrici: with these coins were 85 minimi. Only 150 coins out of the Brougham hoard of 500 were examined, but the representation was much the same: 3 coins of Valerian, 5 of Postumus, and 8 of the Tetrici were followed by 134 minimi. In each of the two Segontium hoards there occurs, similarly, an opening selection of orthodox coins. In one, the selection is poor and straggling: single examples of Volusian, Valerian, Postumus, Victorinus, and Claudius are found with 5 of the Tetrici and 11 minimi. In the other there are 42 regular coins—2 each of Gallienus and Postumus, 1 each of Marius and Quintillus, 5 of Victorinus, 4 of Claudius, and 22 of the Tetrici, accompanied by a single Carausius[1] and 4 large radiate copies, and followed by 14 minimi.

The chief characteristic of these four hoards is the thinness of the regular series down to, though excluding, the Tetrici. Thus there are 15 coins divided among six emperors at Great Chesters, and 5 coins of as many emperors in the first Segontium hoard. The Tetrican issues are more fully represented, as even the slightest familiarity with the site-finds in this country would lead us to expect. Should we, therefore, on the strength of three of these hoards assign the appearance of radiate minimi to the period of the Tetrici (the peak-point of frequency among the datable coins in all four hoards), and allow, on the strength of the fourth hoard, that they continued at least until the reign of Carausius? Two reasons may persuade us that, in so doing, we may perhaps make our upper limit too early:

(1) The regular coins in these four hoards form so straggling and uneven a series that they give the appearance not of coins regularly accumulated over a definite period but rather of a sudden collection and concealment of such money as men could lay their hands on at a period when, though earlier issues were already growing scarce, the Tetrican issues were still comparatively abundant. The great Blackmoor hoard,[2] concealed in Allectus's reign, reminds us that the issues of Tetricus were even then overwhelmingly common.

(2) The second Segontium hoard ends, as we saw, with a solitary Carausius: and, if once we allow that the coinage of the British Empire was much less frequent in the northern areas, where lay

[1] F. S. Salisbury, in *Num. Chron.* 1931, p. 23, speaks of *two* coins of Carausius in this hoard, in error.

[2] *Num. Chron.* 1877, pp. 90 ff.

Great Chesters and Brougham, than in the midlands and south, we may say that a probable upper limit in the period of Carausius is confirmed by the composition of the Philwood hoard,[1] which appears to have consisted of a close series of Carausius and Allectus accompanied by some 800 minimi.

On the view here adopted, an upper limit somewhere within the last fifteen years of the third century is fully in accordance with the purely numismatic evidence arising from the hoards mentioned. Such a date would explain the reliance which the manufacturers of these early minimi placed upon the types of the Gallic coinage (still relatively the most profuse element in the total currency) as models for their imitations. It would explain also the occasional Carausian air seen in a few minimi. It would even produce an interesting coincidence between the period of the British Empire, when the country enjoyed a temporary independence of action and a revival of nationalist spirit, and the output of considerable numbers of coins of purely insular value, as little related to the currency system of Roman Europe as were the pure silver denarii of Carausius himself. Nevertheless, the present hypothesis must satisfy economic as well as numismatic considerations. From the economic point of view, indeed, it is obviously far more likely that radiate minimi started *after* about A.D. 285 than before that date. The earlier the date, the more profuse is the existing bronze currency, virtually demonetized after Aurelian's reform, seen to be. May we not assume that the effects of this reform (never welcome in Britain, as the site-finds clearly show) were enhanced when Carausius carried out his great re-coinage, in which the emphasis lay quite unmistakably upon the new, heavy, silver-washed antoninianus? If this is so, the old issues of the Gallic type were finally reduced to a purely nominal value, and there was nothing to prevent the private production of very small bronze coins which stood in the relation of mere counters for small change, with perhaps no more than a regional circulation, as compared with the new and heavy antoniniani, for which national acceptance was enforced.

The date here accepted is no new one; it was reached previously by Mr. Mattingly in his inquiry into the two Segontium hoards, and his original hypothesis is strengthened by our own examination of the analogous hoards cited above. One other hoard, from Filton,[2]

[1] *Arch. Journ.* 1870, p. 69. The doubtful relationship existing between the Philwood minimi and those found at Whitchurch, near-by (see p. 258 below), is discussed in the present writer's *Coinage and Currency in Roman Britain* (Oxford, Clarendon Press).

[2] *Proc. Soc. Ant.*[2], viii, p. 385.

makes the accepted date as near certainty as can be; this hoard contained some 2,000–3,000 Æ 2 and Æ 3 of the period of Licinius and Constantine I, with what is recorded as 'a vast number' (unspecified) of radiate minimi. Plainly, the production of minimi fell within the period of the so-called Tetrarchy.

How long did they continue? And, if they did continue, was it in a connected series? The answer to these questions is that, from the beginning of the Constantinian dynasty to the end of that of Valentinian I, there may have been a sporadic production of radiate minimi; a habit once acquired is seldom quite abandoned. But Constantinian prototypes were, in their turn, quickly and widely seized upon for imitation. First the *Urbs Roma*, *Constantinopolis*, and *Gloria Exercitus* types, and then the overwhelmingly successful *Fel. Temp. Reparatio*, or 'fallen horseman', type, claimed wide attention: Mr. Pearce has shown, from his examination of the earlier of the two Lydney hoards,[1] how quickly this last type was subjected to imitation. Radiate minimi were bound to decrease in face of competition from these new 'diademed' minimi; they were not, however, rendered extinct. Two recently published hoards, from Colchester[2] and Duston,[3] suggest what previously had not been allowed, namely, that radiate and diademed minimi occasionally associated. Radiate minimi are found in each of the two late Wroxeter hoards,[4] which can scarcely be earlier than A.D. 385 and which, in view of their poverty, and wear, are conceivably much later: and, even if it is objected that these particular minimi may be survivals from the earlier period of their production, Mr. O'Neil has adduced strong archaeological evidence from Bourton-on-the-Water[5] which suggests not only that ordinary radiates were in regular use at the end of the fourth century (a fact which many a Theodosian hoard has already shown), but that there was also a re-coinage of radiate minimi at the same time.

The same conclusion is indicated by a study of certain hoards in the second of the two classes named above, i.e. those in which regular issues (if they occur at all) form a scanty proportion of the whole and (as well as exhibiting signs of wear) show little coherence as a series. The 81 radiates of the Procolitia hoard[6] were accompanied by 8 regular Æ 3 from Claudius II to Valens; the regular coins, even

[1] *Lydney Report*, pp. 112 ff.
[2] *Num. Chron.* 1934, p. 255.
[3] *Num. Chron.* 1934, p. 266 (?cf. *Num. Chron.* 1869, p. 169).
[4] Wright, *Uriconium*, pp. 68, 69; *V.C.H. Shrops.* i, pp. 217, 233.
[5] *Num. Chron.* 1935, pp. 275 ff.
[6] *Num. Chron.* 1933, p. 82; it should be added that some doubt has been expressed of the authenticity of this hoard as at present composed.

the latest, were much worn, though the minimi were quite fresh. A small hoard from Icklingham[1] contained 11 radiate minimi with 7 or 8 regular Æ 3 of Valentinian and Valens. The Richborough radiates,[2] over 850 in number, were found with a thin sprinkling of regular coins from Gallienus to Arcadius; we may note in passing that even if the regular coins had been absent, these particular minimi could in any case be dated after A.D. 350, indeed probably after A.D. 385, as certain coins show a combination of radiate obverse with what can only be a *Fel. Temp. Reparatio* reverse, while on other coins the reverse is almost as certainly drawn from the *Gloria Romanorum* type of the house of Valentinian.

It may therefore be concluded that radiate minimi were first produced a little before A.D. 300, and that, after being used as local or token currency for some fifteen or twenty years, they were temporarily superseded by diademed substitutes. It seems, however, that at the end of the fourth century there was a resuscitation of the radiate minimi, and that they then recaptured their old popularity. We may now ask, first, why these coins were revived, and, secondly, what was their relation to the diademed minimi?

The last radical change in the Roman coinage, prior to the interruption of supplies to Britain which the evacuation caused, was the reduction of the module of bronze from Æ 3 to Æ 4; from about A.D. 390 onwards until A.D. 410 or, according to recent theory,[3] even later, this province received only Æ 4 to replenish its existing stocks of bronze currency. One result of this was, obviously, that any coins subsequently made in Britain would be on the Æ 4 standard; indeed, it is likely that after the supplies of Roman Æ 4 ceased altogether the value of bronze coinage appreciated somewhat; and a little group of 'blanks' in a recently examined Theodosian hoard from Kiddington[4] supports this view. If this is correct, then, when it became necessary to produce a native imitated coinage, the module would possibly drop even below that of Æ 4. The small bronze coins made in the post-Roman period can scarcely have been comparable in purpose with the productions of the end of the third century. The latter, as we have seen, could have ranked only as local 'small-change' coinages, turned out at a time when there was a gold standard and a theoretical silver standard; gold and silver were not now strictly necessary, as taxes had no longer to be paid to

[1] *Num. Chron.* 1934, p. 262.

[2] Report forthcoming.

[3] Professor R. G. Collingwood in *Oxford History of England*, i, ch. xviii; cf. *Num. Chron.* 1936, p. 84.

[4] *Num. Chron.* 1936, pp. 82 ff.; *Oxoniensia*, 1936, pp. 70 ff.

the Roman Government. Any gold or silver that might enter or exist in Britain had no more than a bullion value, for use in whatever trade and commerce still remained. Thus the bronze coinage would, in the post-Roman period, acquire a primary importance as being the chief, if not the only, internal currency in Britain.

The first stage of post-Roman currency is shown fairly clearly by the three existing coins of 'Carausius II'.[1] All are of bronze, and two of them were found at Richborough. Here, as we cannot doubt, is an instance of a regional coinage of necessity, struck in that part of Britain which was most highly civilized and perhaps least willing to forgo the advantages of coinage struck by authority of a known commander or chieftain. There is a brave show of nationalism in these three coins. The name 'Carausius' itself, the reproduction of Constantinian reverse-types which had supplied material for universal imitation for well over half a century, the retention of a module well up to Theodosian standards—all this betrays nationalism and an attempt to maintain former conditions. This, however, was not enough. Our three coins suggest that the issue was only very limited; yet, as the years went on, bronze coinage would be needed more and more. It should be remembered incidentally that much of the last Theodosian currency of Roman days was, for one reason or another, immobilized in the hoards which now turn up so frequently and which, as at Caerwent, may have absorbed a large proportion of the last Roman coins in circulation. We may now guess at the reasons which caused a resuscitation of radiate types on minimi, namely, the general need for small bronze coins, the types of which, in this period of involuntary nationalist independence, were supplied by the tradition of the small bronze minimi manufactured for some years in and after that former period of independence under the first and more famous Carausius.

There is, then, evidence and reason for the probable revival of radiate minimi. Are there any specific groups in which such minimi can be recognized? *A priori*, we might expect these minimi to have been restricted within regional limits, for they were struck in a period of narrowing communications caused by a general tendency for the walled towns to absorb the population of the undefended country areas. We might also expect that the new coinage, called into being, as it was, through a genuine and increasing money-shortage, formed a more and more close and homogeneous series, with an ever-decreasing admixture of the old Roman coins proper. These

[1] *Num. Chron.* 1887, pp. 191 ff.; *Richborough Report*, ii, pl. xxxvi, 1; British Museum.

conditions, admittedly hypothetical, are not uncharacteristic of a few 'pure' hoards of radiate minimi. The hoards from Procolitia, Icklingham, and Richborough, cited above[1] and including a handful of regular Roman issues, are then a prelude (on our theory) to the unmixed or almost unmixed hoards of which that from Mere,[2] and probably those from Hayle[3] and Whitchurch,[4] are good examples. The Whitchurch hoard, indeed, supplies the clearest indication of the regional limitations of this currency, in the shape of 17 coins from related dies, and the lumps of scrap-metal also included in this hoard are an eloquent though silent witness to the hard times experienced. There are die-identities also in the Richborough, Hayle, and Verulamium hoards.

Of the last-named hoard,[5] however, it is stated that its inclusion in an undisturbed stratum which dates not later than A.D. 300 is archaeologically certain. Therefore, although this 'pure' hoard of radiate minimi is, on economic grounds, somewhat out of place at such a date (for why should any one hoard farthings alone when pennies are also available?), and although it includes some few coins of a style more suitable to the fifth century than to the end of the third, we must look upon it as a solitary exception to a rule otherwise rendered extremely probable on both economic and numismatic grounds.

It might perhaps be expected that radiate minimi of the fifth century and onwards would show certain peculiarities of style and types alien to their third- and fourth-century predecessors. Yet, though change is always apparent in a long series, we must reckon also with a conservatism on the part of the artists who produced these coins—a conservatism strong enough to ensure the survival of radiate types for at any rate one and a half centuries after their first general appearance. This conservatism would be emphasized by the continuation in currency of even a handful of the old models (and most late Theodosian hoards include such a handful). There are, however, some signs of a change. The original square altar popularized on the issues commemorating Claudius Gothicus is eventually transformed into an equal-armed cross with pellets in the angles. A coin of this type (a type reminiscent of certain Anglo-Saxon brooches) was curiously enough included in the hoard from Richborough—a place which above all others would feel the new influences trans-

[1] pp. 255–6.

[2] *Num. Chron.* 1934, pp. 300 ff.

[3] *Num. Chron.* 1936, pp. 202 ff.

[4] *Num. Chron.* 1934, pp. 92 ff.: 1935, pp. 16 ff.; see also above, p. 254, note 1, on the Philwood minimi.

[5] Full report forthcoming.

mitted by Anglo-Saxon jewellery. Another example occurs in the Whitchurch hoard. An even more elaborate example, with annulets instead of pellets, comes from the north.[1] Reference may, perhaps, also be made to the remarkable series of stylized *Pietas Augustor.* types seen in the Whitchurch hoard: this again is a type which allows of 'pattern' treatment. And we must remember that the radiate obverse appears on certain of the sceattas.

We come now to our second question, that which involves 'diademed' copies. No one has yet doubted that such minimissimi as those found at Lydney[2] should be assigned a date well on in the fifth century: and the little coins in both the Richborough 'diademed' hoard[3] and the Bourton-on-the-Water hoard[4] are of very much the same class. The smallest of these coins are often of no greater diameter than 2·5 or 3·0 mm. The 'fallen horseman' or *Fel. Temp. Reparatio* type supplies what seems to be almost the only model for these minimi. On many of the smaller coins indeed this type has to be taken for granted, by multiple analogy, as only a fraction of the original type appears on their minute flans. Here, again, we have the phenomenon of the mass-revival of a type introduced hardly less than a century previously, and subsequently kept before men's eyes by sporadic appearances. These three hoards, and in particular that from Lydney, strongly suggest that regional development of fifth-century currency which we have already attributed to the later class of *radiate* minimi. The Lydney coins are, as it were, inbred: the hoard opens with some 150 clipped coins of fourth-century date, and these are followed by about 1,500 minimi in which the successive reduction in size is balanced by a steady breaking-up of the original *Fel. Temp. Reparatio* type. We are now faced with the problem of the relationship which existed between the two types of minimi—radiate and diademed—in the fifth century and onwards.

The theory has been put forward that the Romano-British and christianized elements in Britain maintained an affection for the 'diademed' types which had originated in the Constantinian era, while the pagan Saxons showed a preference for the pre-Christian types of the third century. This division is probably much too drastic. Was the *Fel. Temp. Reparatio* type, after all, an exemplary Christian model, and were the non-Christian Saxons sufficiently alert to the diverse religious implications of the radiate and diademed

[1] The writer intends to develop the analogy between the 'cross-and-pellets' coin-type and Anglo-Saxon circular brooches in a future paper.

[2] *Lydney Report*, pp. 116 ff.

[3] *J.R.S.* 1932, p. 223.

[4] *Trans. Bristol and Glos. Arch. Soc.* 1934, pp. 133 ff.

prototypes? Indeed, we may well doubt whether the Saxon infiltration was for some time accompanied by any Saxon coinage at all. Saxon preference, so far as our knowledge goes, was for silver. This much might be inferred with some certainty from Tacitus's evidence on Germany (itself substantiated by archaeological evidence) as well as from the sceatta coinage of the seventh century and onwards; and Carausius's reintroduction of the denarius of pure silver has recently been interpreted as a sign of that emperor's wish to trade with the Lowlands. The Saxon penetration of Britain was for a long time gradual; the new intruders moved in fluid groups, now advancing, now receding, and were not finally consolidated until Ceawlin's great victory of A.D. 597, after which the appearance of thrymsas and sceattas indicates the reopening of relations with the Continent. Up to this date, however, the Saxons had little real unity outside their regional groups: foreign relations they can have had none, and consequently little need for a coinage in the precious metals. It may indeed be asked whether, for some time, they felt need for any coinage at all: many a Saxon cemetery has given evidence of their use of Roman coins merely as ornaments or as weights for scales. This is not to say that they may not in some cases have taken over the habit of a regional currency of minimi from Romano-British neighbours. There is, however, little reason to assume this for certain, and still less to suppose that it was at all a common phenomenon.

We are left, then, to find a place for both radiate and diademed minimi chiefly among the Romano-British elements in post-Roman Britain. The geographical distribution of these two classes is of little help to us here. There are diademed minimi in the west at Lydney and Bourton: radiate minimi come also from the west at Whitchurch and Hayle, and from the north, too, at Procolitia. The east has produced the diademed type, at Richborough, and radiate coins also, again at Richborough, as well as at Icklingham. It is possible that in trying to account for this clearly unsystematic grouping we are exaggerating the function of post-Roman minimi. If they were purely regional currencies, as has been suggested, the choice of type might depend on various circumstances, as for instance the preference of local authorities—whether petty regional chieftains or any town-councils that might survive. I have already suggested elsewhere[1] that the finding of Roman hoards in the post-Roman period would influence moneyers in their selection of types, and this view is historically not impossible. As the late Dr. Brooke wrote,[2]

[1] *Num. Chron.* 1934, p. 105. [2] *English Coins*, pp. 1–2.

'the writer of the Anglo-Saxon Chronicle, when he recorded under the year 418 that the Romans collected all the hoards of coin that were in Britain and hid some in the earth and carried some with them to Gaul, can only have been led to this statement by a knowledge of the frequent discovery of such hoards in Alfred's time, as in our own, or by a long tradition of their discovery'. There is no reason why such finds should not have been frequent from A.D. 410 onwards. Clearly, the finding of a hoard of the period of the Gallic Empire (and these are still abundantly common in Britain) would tend to result, after the coins had been melted down, in the re-coinage of the metal with radiate obverses and with an increasingly stylized range of reverse-types, as exemplified in the Whitchurch hoard; and the same may well be true of the diademed minimi.

On this view, then, it seems that radiate and diademed minimi of the sub-Roman period in Britain owed their origin to the same cause and circulated during the same general period, and that the dualism of types means no more than a dualism of models. Much must necessarily remain to be found out about the currency of Britain from A.D. 400–600. For the moment, however, it is enough to show that minimi of both types fit well the economic and numismatic conditions which those two dark centuries seem to postulate. We cannot suppose that a country which had enjoyed the use of coined money for nearly 500 years would tamely accept the absence of currency. The people of Britain had long been accustomed to copying coins: the imitated 'Philippi', the Claudian copies, the coin-moulds of Caracalla's period and the local productions of the later third and of the fourth centuries all tell the same tale. The habit persisted naturally enough after the evacuation, when virtually all external sources of bronze currency were barred to Britain; and it was possibly the same habit that was responsible for the production of certain of the sceatta types. Here, however, we are going beyond our subject. When relations between Britain and the Continent reopened about A.D. 600, a flood of new influences began to pervade the country, and there followed a new coin-series from which has been evolved, without any appreciable interruption, the coinage of the present day.

PROBLEMS OF THE EARLY ROMAN DENARIUS

EDWARD A. SYDENHAM

PERHAPS nothing so forcibly illustrates the recuperative power of the Roman Republic, after the battering she had received in the Second Punic War, as the successful establishment of a monetary system, conceived more completely and on more scientific lines than any she had previously possessed.

This system, of which the denarius is the central and constant factor, embodied the trimetallic principle *aere argento auro flando feriundo* (AAAFF) which henceforth became the basis of the Roman currency down to the fall of the Western Empire. It comprised bronze denominations of the 'sextantal' standard, three denominations of silver, and three of gold. The fact that these last did not, in all probability, make their appearance till a few years after the silver does not invalidate our conception of the system as a whole.

That we are now able to fix the date of the earliest denarii in or about the year 187 B.C. must be regarded as one of the most valuable results of modern research in the field of Roman numismatics.[1] But though we have a fairly certain starting-point for the long and eventful history of the denarius, the earlier chapters of that history are singularly obscure and abound with problems, for the solving of which we have little evidence beyond that supplied by the coins themselves.

The main difficulty arises from the fact that over a fairly long period the obverse and reverse types remain practically unchanged and the coins bear no legend other than the word ROMA on the reverse. Symbols, whenever they occur, are as a rule too indefinite to be connected with particular mints or moneyers. Occasional letters or monograms are more useful in this respect, but are frequently difficult to interpret. We may add, too, that neither recorded finds nor references by ancient writers make any solid addition to our knowledge.[2]

The problems with which I propose to deal in this paper relate to (1) the probable birth-place of the denarius, and (2) the classification of its earlier issues.

[1] Mattingly and Robinson, 'The Date of the Roman Denarius', *Proceedings of the British Academy*, vol. xviii (1932).

[2] The noteworthy example is, of course, Pliny, whose circumstantial dating of the denarius has thrown the whole conception of the earlier Republican coinage into confusion. See Mattingly and Robinson, op. cit., pp. 24–6.

I. THE PROBABLE BIRTH-PLACE OF THE DENARIUS

It seems to have been taken for granted by the older schools of numismatists that the denarius was first struck in Rome.[1] But not only is there no evidence to support this view, but several important considerations weigh against it, as will be seen from a survey of the pre-denarius coinage and from a critical examination of the denarius in the earlier stages of its existence.

As far back as the fifth century B.C. southern Italy had possessed a Greek silver currency consisting of didrachms and smaller denominations which bore the names of the mints at which they were issued. In 269 B.C. the Roman Republic began to issue didrachms, essentially Greek in style, bearing various types and the name ROMA or ROMANO, but without any indication of their places of mintage. There is little doubt, however, that they were struck at mints that had previously been striking Greek didrachms. Later in the third century these 'Romano-Campanian' didrachms, as they are commonly but somewhat inexactly called, were superseded by quadrigati, which are uniform in type although they exhibit minor variations of style. The quadrigatus remained current down to the end of the Second Punic War. But during the war a new coin, known as the victoriate, was introduced,[2] which outlived the quadrigatus and was itself eventually superseded by the denarius (187 B.C.).

Most victoriates, like the 'Romano-Campanian' didrachms and quadrigati, are without mint-marks,[3] but, as they vary considerably in style, it is evident that they were struck at different mints. The absence of mint-marks, therefore, indicates that when the Republic took over certain of the old-established mints of south Italy and Sicily for the issue of its own coinage, the local mint name was suppressed in favour of the generic name ROMA.

[1] Cf. Grueber, *Coins of Rom. Rep.*, p. xxxvi. Livy's statement, *tum primum populus Romanus argento uti coepit*, does not necessarily imply that the silver coins were struck in Rome.

[2] Cf. 'The Victoriate', *Num. Chron.* 1932, p. 19, where it is shown that the victoriates fall into two distinct groups: (*a*) pre-denarius issues, and (*b*) those struck *circa* 175–168 B.C. Our reference here is to victoriates of class (*a*).

[3] The preponderance of anonymous victoriates over those with symbols, letters, or monograms may be seen from the following finds:

	Anonymous	*With symbols, &c.*
Taranto	171	20
Pisa	70	13
Canosa	75	42
Caltrano	263	84
Fano	67	21
Renieblas	60	22

The victoriate, however, presents a fresh feature in sometimes bearing a monogram or initial letter in addition to the generic ROMA. Several of these, such as VB, V, ℞, ℞A appear unmistakably to indicate the names of mints, and probably others, at present difficult to identify, have a similar meaning. It is evident, therefore, that in the early years of the second century, besides certain old-established mints which had been taken over by the Republic, a number of new mints came into operation; and, just because they were new, the mint-name is specified on the coins.

It is significant that among the newer mint-marks on victoriates we find ℞A, which cannot very well be other than that of Rome. The plain inference from this is that no silver coins were struck in Rome prior to the issue of these victoriates, which, chiefly on grounds of style, must be placed very near 187 B.C.[1]

It has been remarked as a somewhat surprising fact that no victoriates bear mint-marks that can reasonably be connected with cities such as Rhegium, Tarentum, or Neapolis, whose commercial importance would naturally mark them out as likely mint-centres for this essentially commercial coinage. But if, as I have suggested, the issues of the older-established mints are unmarked, it is precisely to these mints that the majority of victoriates should be assigned.

Since, then, it may be regarded as reasonably certain that there were mints in southern Italy which issued successively Greek didrachms, 'Romano-Campanian' didrachms, quadrigati, and anonymous victoriates, it is natural that we should look to these, rather than to Rome or any of the newer mints, for the first issues of the anonymous denarii.

There is, however, a further consideration that is practically conclusive for our locating the birth-place of the denarius somewhere in southern Italy.

It may be taken as an axiom that a new coinage cannot come into operation without some regard to antecedent coinages. It requires a 'lead-up', so to speak. The denarius represents a new coinage, designed to replace all existing silver coinages in the dominions of the Roman Republic. At Rome we find no evidence of the existence of any silver coinage that could lead up to the denarius. But when we turn to southern Italy, and more particularly to the district of Bruttium, we find monetary conditions which exactly fit the case.

[1] It may be mentioned in passing that the monogram ℞A does occur on a rare issue of denarii, but, although these are probably the first denarii actually struck in Rome, they do not belong to the earliest class. Mr. Grueber recognizes this fact, although, rather curiously, he does not assign the ℞A coins to the Roman mint (cf. Grueber, *Coins of Rom. Rep.*, vol. ii, p. 190).

In the first place, a silver currency had long been in existence. Secondly, the characteristic denarius type of the Dioscuri on horseback had already appeared on coins of southern Italy; and of all the representations of the Dioscuri as a coin-type, that which most nearly anticipates the denarius occurs on coins of the Brettii struck during the latter half of the third century B.C.[1] Thirdly, these coins, which weigh between 85 and 90 gr., were followed by issues of slightly lower weight-standard with the heads of Nike or Amphitrite as their obverse type. The average weight of these coins is 72·2 gr.,[2] which is very little above that of the early denarius.[3] So that in actual currency we may imagine that they would have exchanged equally with denarii.

We find, therefore, in Bruttium the only coinage that can be regarded as a 'lead-up' to the denarius, inasmuch as it supplies both an anticipatory type and an anticipatory denomination.

Our evidence, therefore, points unmistakably to the district of Bruttium, and presumably to Rhegium, its chief mint-city, as the birth-place of the denarius. It is unlikely, however, that its supremacy as the standard silver coin of the Republic was established all at once. Not only is it reasonable to suppose that the process took some time, but the varied and sometimes erratic development observed in its earlier issues points to the same conclusion. Thus, victoriates and possibly debased quadrigati would still be in circulation in central Italy for some years after the denarius had been introduced in the south. To mention a point at which I have already hinted: it is quite likely that the victoriates with the monogram ROMA, i.e. the first silver coins actually struck in Rome, were not issued until after the denarius had come into being.

2. CLASSIFICATION OF THE EARLIER DENARII

Although the earlier denarii are uniform in type they present certain variations of detail in the treatment of the obverse type, which do not appear to result from chance or mere caprice but follow definite lines of development. I propose, therefore, to take these variant details as the basis of our classification, in order to show the interrelation and, as far as possible, the chronology of the issues.

[1] Certain bronze coins of Tyndaris (Sicily) offer a very close parallel to the Dioscuri type of the denarius. But the issue is inconspicuous and is unrelated to any silver denominations.

[2] This average is obtained from weighing 37 specimens, of which 28 are in the B.M. Collection.

[3] The normal weight of the early denarius is estimated at 70·5 gr. (cf. Grueber, *Coins of Rom. Rep.*, vol. i, p. xli).

(*a*) *Forms of helmet.*

These vary considerably in detail, but are readily grouped under four distinctive types:

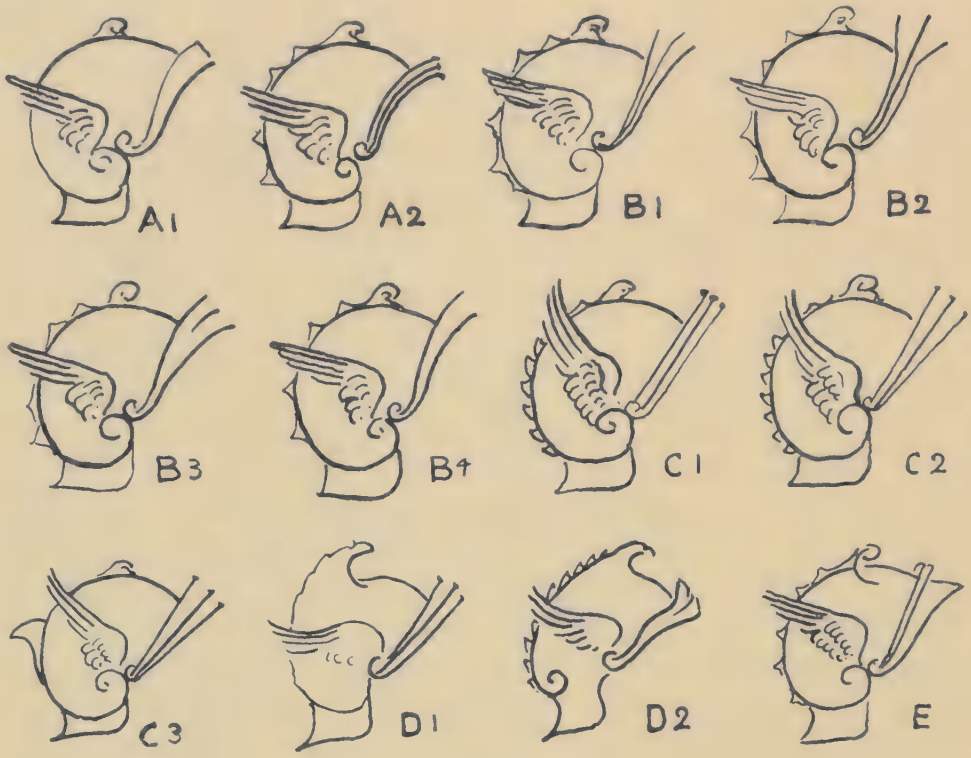

Fig. 1.

1. Bowl-shaped helmet, surmounted by griffon-head, with wing at the side; either without spikes behind (A 1) or with spikes (A 2). The visor is curved and slightly splayed (A 1, 2) or more widely splayed at the end (B 1, 2, 3, 4).
2. Similar shape, but the visor is represented by three straight and almost parallel lines, terminating in dots. The spikes behind are either in close order (C 1, 2) or there is a single spike (C 3). Sometimes there is a small loop on the under side of the visor. Var. of C 1.
3. Phrygian type, pointed at the top and culminating in a griffon-head, with side-wing and spikes behind (D 1, 2).
4. Bowl-shaped, winged helmet with griffon-crest and spikes, but the visor forms a peak in front (E and vars.).

Although these variations in the form of helmet are due in some measure to differences of mintage, there is little doubt that they also indicate differences of date. Our first step, therefore, is to determine which is the original or prototype of the series.

Here we can at once rule out class 2 (C 1, 2, 3). The visor composed of three straight lines is purely decorative and conventional and is quite impracticable in point of construction. The design, therefore, shows itself to be an artistic adaptation of some earlier type.

In class 1 (A 1, 2) we see a form of visor that is not only structurally possible but is evidently portrayed with great care. In its general design this form of helmet resembles that worn by Bellona on unciae of the 'semi-libral' and 'triental' standards (i.e. prior to 187 B.C.), but with the important addition of the griffon-crest and side-wing. A 1 and A 2 are very closely related in style and must belong to about the same date, but as A 1 omits the griffon-spikes, which occur consistently on A 2 and on all other forms of helmet, we have a definite reason for regarding A 1 as first in point of time, and as such only to be found on the earliest issues.

B 1 appears to be derived from A 2, but as the splayed form of visor is found on bronze coins of the pre-denarius period it is possible that B 1 may have an independent origin. That is to say, B 1 and A 2 may be contemporary styles but characteristic of different mints.

Class 4 (E with peaked visor) is clearly the latest, since it eventually supersedes all other forms and lasts as long as the 'Roma' head appears on the coinage. Thus form E and its numerous variants lie outside the range of our present subject.

Quinarii occur with types A, B, C, and D, but never with E. It follows, therefore, that form E cannot have been generally adopted on the coinage until after the quinarius was withdrawn. The exact date at which this took place is not absolutely certain, but it was probably not later than 172 B.C.

Form D is perhaps the most difficult to place chronologically. It only occurs on a few quinarii of the earlier period and sporadically on denarii of much later date. Its chief interest lies in its resemblance to that found on the Perseus head of the Macedonian tetradrachms of Philip V. In this respect its introduction may have an original significance. But, as a coin-type, its connexion is with certain mints and has no direct bearing on the development of the denarius.

(*b*) *Patterns of ear-rings.*

These present a good deal of variety (see Fig. 2), but it is evident that in their selection the coin-designers followed a more or less definite plan. We might almost say that a particular pattern of ear-ring comes into fashion for a season or two, after which it drops out and a fresh pattern takes its place. Although this is more strictly true of issues belonging to the latter half of the second century than

of the earlier issues with which we are at present concerned, it will be seen that the ear-ring is of no small importance in the classification of the coins.

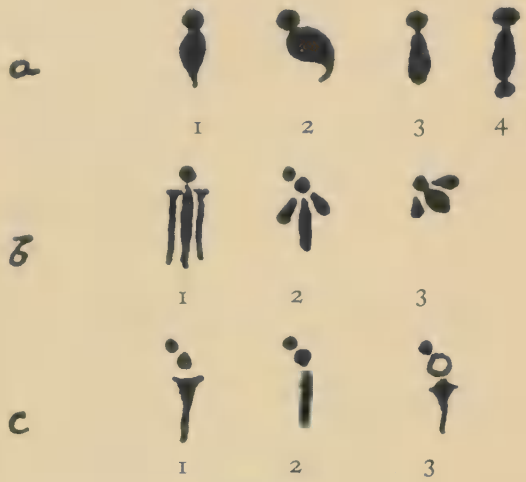

Fig. 2.

The earliest forms are clearly *a* 1 and *b* 1, both of which are directly copied from forms found on Greek didrachms of southern Italy. Thus *a* 1 is characteristic of the Brettian coinage, and *b* 1 occurs frequently on didrachms of Campania, Lucania, &c.

(*c*) There remain a few further details which contribute something to our method of classification. These are:

(i) The style of arranging the hair, either tied in a bunch, flowing loosely, or falling in conventional strands.
(ii) The form of border, either of dots or an encircling line.
(iii) The setting of the word ROMA (on the reverse) either on a raised tablet, within a rectangular frame, or below the exergual line.

Thus, as the basis of our classification, we have certain main factors, or guide-lines, each factor developing into a number of variants. Our next step is to tabulate the coins in their different series in the order which these guide-lines indicate.

Series I (for table see following page). There can be little doubt that this series comprises the earliest denarii, issued probably at Rhegium or at any rate in the neighbouring district.

The form of helmet A 1 is, as I have suggested, probably the original or prototype, of which A 2 is an amplified form with griffin-spikes added. The ear-ring *a* 1 occurs regularly on the Brettian silver coins (octobols) of the Nike and Amphitrite class (see above),

which are the immediate predecessors of the denarius. Ear-ring *b* 1 is similar to forms frequently found on didrachms of Metapontum, Neapolis, &c., and is thus associated with the art of southern Italy. It only occurs on early issues of denarii, but is imitated at various mints generally as *b* 2 or 3.

Series I[1]

			Helmet	*Ear-ring*	*Other details*	*Refs.*
1	Den.	Anonymous	A 1	a 1	Hair tied in bunch. Border of close dots. ROMA	G. lxxviii. 1
2	,,	Symbol, Prow	A 1	a 1	,,	G. lxxviii. 10
3	,,	Symbol, Victory	A 1	a 1, 3	,,	G. lxxviii. 11
4	,,	Anonymous	A 1	b 1	,,	G. viii. 1
5	,,	,,	A 2	b 1	,,	G. viii. 3
6	,,	Symbol, Anchor	A 2	b 1	,,	G. lxxviii. 9
7	,,	Symbol, Apex	A 2	a 1, 3	,,	G. lxxix. 4
8	,,	Symbol, Apex and hammer	A 2	a 3	,,	G. lxxix. 5
9	Quin.	Symbol, Spear-head (vertical)	A 2 B 1	a 1	,,	G. lxxx. 2
10	Den.	,,	A 2	a 2	ROMA	
11	,,	,,	B 2, 3	b 2	,,	Cf. G. lxxx. 1 (var.)

The anonymous issue (no. 1) is closely followed by nos. 2 and 3, with symbols, prow and Victory flying r. over the Dioscuri. Similarly, the anonymous issues (nos. 4 and 5) are followed by nos. 6, 7, and 8 with symbols, anchor, apex (flamen's head-dress), and apex with spiked hammer.

The obverse type of no. 10 is identical with nos. 6, 7, and 8, but the reverse shows a somewhat different style and the legend appears as ROMA instead of ROMA.[2] No. 11 is identical with no. 10 as regards the reverse, but shows a later development of the obverse type. Both these issues belong to the same mint, either Rhegium or some closely allied mint, but evidently extend down to a later period than that covered by issues 1–8.

Quinarii of the spear-head series (no. 9) show helmets A 2 and B 1, with ear-ring *a* 1, and the form ROMA on the reverse. It is

[1] The coins mentioned in this article are not illustrated, but references are given to *B.M.C.* (Grueber), vol. iii.

[2] The use of A instead of A in the word ROMA does not indicate lateness of date. Both forms occur on 'Romano-Campanian' didrachms and quadrigati. Also, the archaistic A occasionally reappears on denarii long after A had become general.

quite likely, therefore, that they were issued immediately before the denarii of issue no. 10.[1]

Series II

		Symbol	*Helmet*	*Ear-ring*	*Other details*	*Refs.*
1	Den.	Caduceus	A 1 var.	b 3	Unusual style of head. *Rev.* Circle of dots. ROMA (in ex.)	G. lxxix. 9
2	,,	Curved knife	B 2	b 3	,,	G. lxxx. 3

Series II. These two issues, at first sight so unlike one another, yet with points in common that make it impossible to separate them, are amongst the most puzzling of the earlier denarii. No. 1 (caduceus) exhibits a distinctive treatment of the head, quite unlike that of any other issue, and a helmet that approximates to the earliest type, A 1. No. 2 (curved knife) shows a totally different head, with helmet B 2. Both have ear-ring *b* 3, which is a very unusual development of *b* 1, also the word ROMA is placed below the exergual line. The flans are of the same form, bevelled at the edge. By no means the least remarkable feature, common to both issues, is the border of dots, instead of the usual linear circle, on the reverse. This peculiarity does not occur elsewhere on denarii.

That both issues are from the same mint admits of no question, but the location of this mint is highly problematical. On account of their unusual style and fabric it is impossible to include them in series I. At the same time, it seems probable that they belong to the neighbourhood of Bruttium, and a connecting link may perhaps be found in the border of dots, which also occurs on the reverse of the Nike–Amphitrite series of Bruttium.

No. 1 is evidently early, while no. 2 suggests a later development, although, in actual point of time, the two issues need not be very far apart. In this respect these two issues present an almost exact parallel to nos. 10 and 11 in series I.

Series III (for table see following page). This small group, which stands rather by itself, shows an independent and somewhat irregular development from A 2, sufficiently close as to leave no doubt as to the model from which the coins are copied, yet exhibiting a coarse and almost barbaric mannerism suggestive of their having been made

[1] At some mints quinarii were issued before denarii. This certainly happened in the case of the issues marked H (Series IV, 9, 10) and AA, and probably KA (Rome) (Series IV, 6, 7). Some of the 'new mints', e.g. L and Q, which had issued victoriates, struck quinarii but no denarii.

Series III

			Helmet	*Ear-ring*	*Other details*	*Refs.*
1	Den.	Letter C	A 2	a 1	Rough style and technique ROMA	G. lxxxiv. 8
2	,,	,,	B 1 B 2	b 2 b 2	,, ,,	Haeb. 287 G. lxxxiv. 7
3	Quin.	,,	B 4	a 1	,,	Haeb. 291; B.M.
4	Den.	Symbol, Staff with bosses	B 1 B 2	b 2 b 2	,, ..	G. lxxx. 5 ..
5	Quin.	AR	B 4	a 1	..	G. lxxxi. 19

by unskilled mechanics. Since the corresponding *aes* denominations with the letter C are mostly overstruck on local Sardinian coins, it has been very plausibly suggested that they, and naturally also the silver coins with C, were struck in Sardinia. It will be seen, moreover, that a mint in Sardinia gives precisely the conditions that would account for the unusual style of this group. The commercial intercourse between Sardinia and Rhegium would naturally bring the denarius to the notice of the Sardinian traders at an early date, hence the adoption of the early type A 2; while the fact that the art of coining was still in a rudimentary stage in Sardinia readily accounts for the irregular and coarse technique. The denarii with symbol, staff, placed horizontally, exhibit exactly the same features as those with the letter C, and undoubtedly belong to the same mint. The quinarii (nos. 3 and 5) are practically identical as regards style.

Series IV

			Helmet	*Ear-ring*	*Other details*	*Refs.*
1	Den.	Anonymous	B 1	b 1	Bold style. Hair in bunch ROMA	
2	,,	,,	B 2	a 2	,,	Martini 83
3	Quin.	,,	B 2	a 3 b 2	,, ,,	G. xii. 6 Haeb. 131
4	Den.	,,	B 3	b 1 b 2	..	G. lxxxi. 2
5	Quin.	,,	B 3	a 1 a 3 c	..	G. lxxxi. 5
6	Den.	RO RA	B 3	b 2	..	B.M.
7	Quin.	,,	B 3	a 1	..	
8	,,	Q	B 1 B 2	b 1 a 3	..	G. lxxxv. 5
9	Den.	H	B 3	a 3 (?)	..	G. lxxxiv. 14
10	Quin.	,,	B 3	a 1	..	G. lxxxiv. 15–17

Series IV. This series includes a number of issues developed from the form of helmet B 1. Although B 1 is closely related to A 2, it has a certain independence of style that separates it from the Rhegium group (series I); and the ear-ring *b* 1 connects the series with Campania or Lucania rather than with Bruttium. Not improbably it starts at Neapolis.

The anonymous issues (1–5) form the basis of this series and also of series V. Issues nos. 6–10 may reasonably be assigned to central Italy. Of these nos. 6 and 7 can definitely be assigned to Rome. Although these are, in all probability, the first denarii and quinarii struck in Rome, they are clearly not as early as the Rhegium group, since the details of the obverse type show definite signs of later development from the prototype.

The mints signified by the letters Q and H are uncertain. So far Q cannot be identified.[1] But for H Hatria and Herdonea have been suggested. Neither is very convincing, but perhaps the former is to be preferred.

In connexion with nos. 9 and 10 it may be noted that although the type of helmet is the same, the style of the quinarii is decidedly superior to that of the denarii. The latter, which are of considerable rarity, may belong equally to series V.

Series V

			Helmet	*Ear-ring*	*Other details*	*Refs.*
1	Den.	Anonymous	B 2	a 4	Hair in strands. ROMA incuse on raised tablet.	G. lxxxi. 3
2	,,	,,	B 4	c 2	Hair tied in bunch. ROMA Letters partly incuse and partly in relief.	G. lxxxi. 1, 2
3	,,	,,	B 1	c 2	ROMA in relief. Large head. Flat outspread flan.	Sydenham Coll.
4	,,	Caduceus	B 4	c 2	,,	G. lxxxi. 8, 9

In *Series V* the most interesting feature is that the word ROMA (on issue no. 1) is in incuse letters on a raised oblong tablet, similar to the device on earlier quadrigati. On no. 2 a sort of half-and-half method seems to have been adopted whereby some of the letters appear in relief and some incuse. The reason for this device is not

[1] It is not even certain that the letter is Q. On the coins it appears as Q, Q-, or Q-.

clear, but it is quite certain that it is not primitive in the sense that because of the incuse lettering these denarii ought to belong to the very first issue. In the evolution of style, which I have been trying to work out, these issues grouped under series V seem to develop more or less naturally from the anonymous issues of series IV (nos. 1–5). Thus the helmets B 2 and 4 are clearly derived and not original forms, and cannot, therefore, be placed among quite the earliest issues.

The incuse striking of the reverse type is a familiar device on earlier coins of Caulonia, Croton, Metapontum, and other mints of southern Italy. Incuse lettering was introduced on quadrigati but was subsequently abandoned in favour of the more usual relief striking. Possibly some local prejudice may have prompted the revival of the incuse device on this particular issue of denarii, in much the same way as it reappears on denarii of TI.Q(uinctius) at the end of the second century B.C. It is an interesting coincidence, too, that the coins of Ti. Quinctius were almost certainly struck in south Italy.

The incuse lettering fades out in issue no 2, which suggests a transition or breaking away from no. 1. The style of these coins is invariably poor, and the heads are in low relief rather outspread. These coarser traits become even more pronounced in issues nos. 3 and 4. The issue with symbol *caduceus* cannot be connected with series II, no. 1. At best it can only be a very inferior imitation.

Series VI

			Helmet	*Ear-ring*	*Other details*	*Refs.*
1	Den.	Anonymous	C 3	a 1	Fine work. Hair in loose curls. ROMA	G. xii. 4
2	Quin.	,,	C 3	a 1	..	..
3	Den.	Corn-ear	C 1	a 1	..	G. xiii. 1
4	Quin.	,,	C 2	a 1	..	G. xiii. 2
5	Den.	Spiked hammer	C 1	a 1	..	Sydenham Coll.
6	Quin.	,,	C 1	a 1, 2	..	G. xiii. 3
7	Den.		C 1	a 1	C•AL (rev.)	G. xiii. 4
8	,,		C 1	a 1	C•VR (rev.)	G. xiii. 5
9	Den.	Palm-branch (on obv.)	C 1	c 3	ROMA	G. lxxxi. 12
10	,,	Anonymous	C 1 (with loop)	c 3	,,	G. lxxxi. 11
11	,,	Olive-branch (on obv.)	,,	c 3	,,	G. lxxxi. 13
12	Den.	Letter B	C 1 (with loop)	b 1	,,	..

Series VI. The characteristic form of helmet here is C 1; but possibly the variant C 3 precedes it in point of time, as it suggests a transition from B 1 to C 1. The form C 1 is very distinctive in design, and shows an originality of treatment not found in the derived series II, III, IV, and V. The technique is superior to that of most of the earlier series, and a tendency towards elaboration of detail is noticeable particularly in the free treatment of the hair. It may be inferred that the mint to which these issues belong possessed an independent character and also was capable of producing good art. The suggestion, therefore, that this mint is to be looked for in Sicily fits the general style of this group of issues.

The corn-ear that appears as a symbol on the commonest issue of the series is appropriate to Sicily, the corn-growing island.

Smaller *aes* denominations (mainly sextantes and unciae) with the symbol corn-ear, or with corn-ear and the monogram ⋔ (Catana), are frequently overstruck on coins of Hiero II of Syracuse, thus providing a further connexion between this series and Sicily.

Issues nos. 7 and 8 present a feature of some interest by adding on the reverse the names of C. Allius and C. Varro, in abbreviated form. It is often difficult to determine whether a monogram is that of a person or a mint. Here there is no such difficulty, but the question arises, Why do names of officials occur in Sicily, and apparently nowhere else, at a date considerably before the custom of placing moneyers' names on the coinage was regularly adopted by the Republic?

If we cannot give a complete answer, at any rate the question opens up one or two points worth considering. (1) We cannot say certainly that names of officials do not occur at other mints at or about this date. Some of the monograms at present unexplained may quite possibly stand for the names of persons. (2) The assumption that monograms or symbols are those of moneyers, i.e. *triumviri monetales*, rests on no solid basis. Hence it does not follow that because the names of Allius and Varro occur on issues nos. 7 and 8 they were moneyers. It is quite conceivable that they were government officials in charge of the Sicilian corn-supply, in connexion with which the coins may have been issued. (3) Mr. Grueber assigns these coins to Rome without stating any reasons. But the presence of officials' names on the coins gives no ground for the attribution, and, as I have shown, it is far more probable that this series belongs to Sicily.

Issues 9, 10, and 11 are similar in general style to nos. 1–8, but show three minor changes in detail, viz. the ear-ring changes from

a 1 to *c* 3; the frame enclosing the word ROMA becomes ⌵ instead of ⌴; and, in the case of nos. 10 and 11, a small loop is added under the visor. No. 9 suggests a transitional issue.

These minor variants may be due to difference of mintage or else mark later issues of the same mint.

Issue no. 12, with letter B on the reverse, is difficult to place. Its main features, form of helmet, arrangement of hair, &c., are similar to nos. 9 and 10, but the pattern of ear-ring changes, and there is a very marked difference in the treatment of the head. It is uncertain what mint is signified by the initial letter B. But if, as appears probable, this rare issue is related to the Sicilian group, Buxentum seems more plausible than either Beneventum or Brundusium.

In conclusion, the results of our attempt to deal with some problems of the early denarius may be summed up briefly as follows. The denarius, though essentially the silver coin of the Roman Republic, did not originate in Rome itself but most probably in the district of Bruttium. As its circulation spread over south and central Italy and more mints were employed in its production, the denarius developed minor variations of style and detail, while it preserved its original types. This stylistic evolution I have taken as the basis on which to classify the earlier issues of denarii both chronologically and geographically. So far we have touched little more than the fringe of the subject and our results are in some respects incomplete, but I believe the principles here outlined are capable of being applied not only to the earlier issues of denarii but to the coinage of the Roman Republic generally, down to the end of the second century B.C. In any serious attempt to unravel the problem of this coinage the importance of attention to minor details cannot be rated too highly. Our chain of knowledge is at present far from complete, but (speaking as a student) I find it astonishing how many missing links are to be found in details that hitherto have been passed over as trifles not worth considering.

SECTION III

MEDIEVAL AND MODERN

LES VICISSITUDES DE LA MONNAIE, EN FRANCE, DEPUIS LES ORIGINES JUSQU'AU XIXe SIÈCLE

ADRIEN BLANCHET

I

CERTES exposer que les événements politiques et financiers influent grandement sur les conditions d'existence de la monnaie et sur la circulation monétaire, c'est une tâche qui peut paraître superflue. Car personne ne peut penser à la nier.

On pourrait, à l'appui de cette thèse, produire des exemples, aussi bien pour les séries monétaires grecques et romaines, que pour tous les siècles et la plupart des pays. Je me bornerai à exposer devant vous quelques remarques sur des étapes difficiles du monnayage de la France, en commençant par l'époque gauloise.

Vous savez que le monnayage est né, en Gaule, d'une imitation des monnaies d'or de Macédoine et même de Tarente, et que, pour les espèces d'argent, celles de quelques cités helléniques du Midi de la Gaule et de la péninsule ibérique, et surtout celles de Rome, en ont fourni les meilleurs modèles.

Et, par un processus analogue, c'est de Gaule que la monnaie est venue chez vous, dans la Bretagne insulaire. Je ne prétends pas que les peuples du Continent, en ces temps-là, il y a deux mille ans, vous aient fait un joli cadeau. Je crois volontiers que, comme la langue, dans l'apologue d'Ésope, la monnaie est, à la fois, la pire et la meilleure des choses; il s'agit seulement de l'employer avec discernement et bonté.

A l'origine, les imitations gauloises du statère d'or de Philippe de Macédoine, — venu surtout par le commerce de Massalia et non pas dans les sacs des marchands romains, — ces imitations furent de bon or, métal que les Gaulois savaient apprécier, car ils portaient des colliers (*torques*) et d'autres bijoux, dont nous connaissons de nombreux spécimens. Combien de temps dura le monnayage de bon métal? Je ne saurais le dire avec certitude; mais je crois que ce fut pendant deux siècles environ. Déjà, dans le dernier quart du deuxième siècle avant notre ère, la défaite de Bituit, roi des Arvernes, par les Romains, commença probablement à répandre quelque désordre dans la circulation monétaire de la Gaule.

En tout cas, bientôt, l'ère des troubles s'installe en Gaule. D'abord

en 109–104, les Cimbres battent, à Orange, les Romains, qui perdent 80,000 hommes. Puis en 102, Rome prit sa revanche, quand Marius défit les Ambrons et les Teutons, près d'Aix-en-Provence. Sans chercher à préciser des répercussions que j'entrevois à peine, dans une demie-nuit, j'arrive à la campagne de 58 à 51.

Dans une des conférences que j'ai faites au Collège de France, je crois avoir démontré qu'il est possible d'établir un rapport étroit entre diverses séries monétaires frappées en Gaule, et les événements de la célèbre campagne. Je ne prendrai qu'un exemple, parce qu'il est, à mon sens, le plus typique. Il s'agit du groupe de monnaies de la Bretagne continentale ou Armorique.

On connaît aujourd'hui une cinquantaine de trésors, découverts dans les départements du Morbihan, du Finistère, des Côtes-du-Nord, de l'Ille-et-Vilaine, de la Manche et du Calvados. Ce sont des pièces dont les types sont proches de ceux des monnaies de bon or, émises sans doute au cours du deuxième siècle avant notre ère et qui portent une tête humaine et un char. Or, dans les espèces rendues, en grande quantité, par les trésors dont je viens de parler, si les types se rattachent, indubitablement, à ceux des bonnes pièces d'or, il y a assez de variétés pour qu'il soit possible de croire à des émissions faites dans des pays voisins les uns des autres, mais différents. Et, en outre, le métal de ces pièces est bas, et dans l'alliage, assez complexe, qui a servi pour ce monnayage il existe, à la fois, de l'or, de l'argent et du cuivre. Les proportions sont variables, car, — d'après quelques analyses que j'ai fait établir autrefois, — dans des pièces de ces séries, attribuées aux *Coriosolites* et aux *Osismii*, il y a généralement peu d'or, assez d'argent (153 à 302 millièmes) et beaucoup de cuivre. On est sans doute surpris de la présence de l'or: elle pourrait naturellement être attribuée à l'imperfection des procédés des métallurgistes du premier siècle avant notre ère. Mais il est nécessaire de penser que les monnaies armoricaines de cette basse époque représentent encore le statère imité de celui de la Macédoine. A l'état de neuf, ces pièces nombreuses pouvaient encore offrir un aspect rutilant, analogue à celui des nombreux bijoux de bronze, fabriqués depuis la période du bronze jusqu'à l'époque gallo-romaine.

Ce numéraire ne constitue pas, à proprement parler, une fausse monnaie, comme celle prévue dans la convention monétaire de Phocée et de Mytilène, vers 430 avant notre ère. Mais il faut y voir plutôt un exemple de ce que nous avons appelé, pour la période du XVIe au XIXe siècle: 'monnaie de nécessité'. Et, en effet, je crois avoir démontré que ces espèces armoricaines, de bas métal et

de types dégénérés, correspondent à l'expédition que D. Brutus, lieutenant de César, conduisit contre les peuples maritimes de l'Armorique et qui se termina par la défaite navale des *Veneti* (Morbihan), pendant qu'un autre lieutenant, Q. Titurius Sabinus, à la tête de trois légions, soumettait les *Lexovii* (Calvados), les *Unelli* (Manche) et les *Coriosolites* (Côtes-du-Nord), tous alliés des *Veneti* (56 av. J.-C.).

II

Que dans certaines régions de la Gaule sous la domination de Rome, on ait émis des monnaies irrégulières, c'est certain. Mais il y a place sûrement pour des explications diverses de ces fabrications. Il est possible que, pour une part, ces pièces, — généralement des sesterces et des as, de flans souvent réduits et irréguliers, de frappe assez médiocre, — n'aient été émises que dans des circonstances où la monnaie légale manquait. Et c'est probablement aussi le cas pour les monnaies de bronze de Claude Ier, relativement si fréquentes en Grande-Bretagne. Cette question de la disette de numéraire est importante et j'y reviendrai au cours de cette lecture.

Plus difficile à résoudre peut-être est la question des monnaies du IIIe siècle et particulièrement des deniers de la famille de Septime Sévère. Pour ne parler que de la France, je rappelle que j'ai relevé les noms d'une quinzaine de localités où l'on a trouvé des moules de terre cuite, destinés à produire des deniers, qui étaient le plus souvent d'étain et non d'argent. Il est évident que la nature du métal, assez variable sans doute, peut faire penser à un monnayage destiné à tromper et non à des émissions faites pour parer à la disette de monnaie.

Maintenant, nous arrivons à cette période si troublée du règne de Gallien, qui rendit nécessaire et facile la création d'un empire gaulois, éphémère certes, mais qui fut cependant d'une réelle utilité pour le pays.

On peut même dire que les premières années du règne de *Postumus*, le fondateur de cet empire, furent marquées par une renaissance de l'art monétaire, qui persista pendant quelque temps, même sous ses successeurs éphémères. Il existe des monnaies d'or et de bon argent même, qui sont d'un art digne de celui de l'époque des Antonins. L'abondance relative des pièces d'or des empereurs 'gaulois' (environ 80 variétés pour *Postumus*, près de 40 pour *Victorinus*, 7 pour *Lælianus* et *Marius* et plus de 50 pour les deux *Tetricus*) s'explique par les besoins militaires de ces chefs, sans cesse en campagne, soit contre les Germains, soit contre Gallien. Car l'or n'a jamais cessé d'être le nerf de la guerre (. . . 'the sinews of war').

Mais, à mesure que l'autorité des empereurs 'gaulois' diminuait, et avant que les efforts d'Aurélien, de Probus et de Dioclétien eussent réussi à rétablir l'ordre, la circulation monétaire réflétait les désordres de la situation générale. Il y eut un temps, dont les limites peuvent être placées entre 268 et 278, époque où, l'autorité régionale n'existant plus ou étant sans cesse désorganisée, les habitants pourvurent, de leur mieux, à la carence administrative. Il n'y eut pas alors, à proprement parler, un faux-monnayage véritable; mais il y eut des fabrications d'un numéraire, obtenu par des procédés précaires, avec des coins et quelquefois des moules, exécutés par des ouvriers, qui n'étaient pas des artistes et qui se bornaient à copier, tant bien que mal, les types monétaires réguliers, surtout ceux des empereurs gaulois.

Les dépôts de milliers de ces pièces, découverts à Jublains (Mayenne; en 1879), à Verdes (Loir-et-Cher; en 1900), près de Pezou (même département, en 1935) et d'autres trouvailles, de même nature, plus ou moins importantes, dans diverses régions de la Gaule, et aussi la présence de spécimens dans diverses ruines, tout cela nous démontre que ces fabrications monétaires eurent une importance que l'on ne soupçonnait guère avant 1910. Ces pièces ont même passé en Angleterre (trouvaille de Mere, Wilts., etc.). La récente découverte de 'La Grefferie', près de Pezou, qui comprenait deux vases de terre cuite et trois de bronze, plus ou moins remplis de monnaies depuis Gallien jusqu'à Tetricus père et fils, a démontré que les pièces de petit module et de travail sommaire ont circulé à côté des pièces des empereurs gaulois, du module ordinaire, de fabrication officielle et en bon état de conservation.

J'en arrive donc à penser que les *minimi* sont probablement des monnaies divisionnaires, dont la création était devenue nécessaire par suite de l'appauvrissement de la fortune publique. C'est un fait qui se reproduisit à l'époque constantinienne et une trouvaille de Minturno a révélé des pièces de petit module pour le règne de Valentinien III.

III

Quand les invasions furent terminées et que des royaumes francs eurent été créés en Gaule, le monnayage prit une apparence différente. Le numéraire de bronze, qui avait circulé dans des conditions assez diverses pendant tout l'empire romain, devint exceptionnel et cessa probablement après les premiers rois francs. L'argent même ne servit que pour quelques rares pièces de Gondebaud, roi des Burgondes, et de certains rois francs, Théodebert, Sigebert, etc. Il y

eut aussi, de divers côtés, de minces pièces d'argent, imitées de celles des empereurs Valentinien, Honorius, Anthemius, Julius Nepos, Anastase, aux types de Rome assise et de la Victoire. Et souvent la dégénérescence est rendue plus manifeste par des légendes fictives, composées uniquement de traits parallèles. On peut attribuer la plupart de ces pièces aux Ve et VIe siècles. J'ai supposé autrefois que ces monnaies minces correspondaient au quart du denier du IIe siècle. Mais cette monnaie fragile ne persista pas. Et puisque les espèces d'argent et de bronze semblent avoir disparu pendant un ou deux siècles, je suis convaincu que les transactions commerciales, par échange de denrées, ont dû être très répandues à cette époque. Dans toutes les périodes troublées, l'antique forme du commerce apparaît de nouveau.

La masse la plus considérable du numéraire de l'époque franque est constituée par des pièces d'or, de titre assez variable sans doute, dont un petit nombre portent des noms de rois, et dont la plus grande partie est formée de tiers de sou où sont marqués un nom de lieu et un nom de monétaire. La présence de ces noms propres constitue une des plus difficiles questions du monnayage de la France. Sans entrer ici dans des détails qui m'entraîneraient trop loin, et sans m'attarder sur l'expression *publica fiscalis monetae officina* d'un passage de la vie de saint Éloi, je ferai remarquer que la présence, sur la plupart des monnaies mérovingiennes, de noms d'hommes, qui ne sont pas des noms royaux, indique déjà une décentralisation. D'ailleurs il est vraisemblable que la circulation des espèces d'or, dans la Gaule mérovingienne, fut passablement réduite. Plus tard, le commerce, imposant de nouveau des nécessités, put disposer d'un monnayage d'argent, composé de pièces, petites, mais généralement épaisses, dont plusieurs trésors (ceux de Plassac, de Cimiez, de Savonnières et de Bais, en particulier), nous ont apporté de nombreuses variétés, généralement peu instructives, car les noms entiers y sont rares.

Ce nouveau monnayage d'argent paraît s'être développé d'autant plus rapidement que l'or s'était raréfié bien avant la fin de la période mérovingienne, et non pas seulement, comme on l'a cru, sous les premiers souverains carolingiens.

IV

Nous pouvons dire que le monnayage mérovingien avait été fort peu contrôlé par l'autorité royale. La dynastie carolingienne, — dont les premiers princes ne manquaient pas d'intelligence et possédaient un sens réel du gouvernement, — voulut réagir contre le

désordre des pays qui lui étaient soumis. Charlemagne et ses premiers successeurs essayèrent de consolider leur droit monétaire (*res juris regalis*), et de nombreux capitulaires, dont ceux de 820 et de 864 (Édit de Pîtres), témoignaient d'un sérieux esprit d'organisation. Les comtes étaient chargés de surveiller les ateliers monétaires; mais la multiplicité des ateliers — il y en avait plus de cent pour l'empire de Charlemagne et pour les diverses périodes de son règne — cette multiplicité était un obstacle s'opposant irréductiblement à la création d'une monnaie unique, la seule utile. Aussi Charlemagne, en 805 et 808, défendit d'émettre des monnaies ailleurs qu'au Palais. Mais bien qu'on connaisse la *Palatina moneta* sous Louis le Pieux, dès ce règne la décentralisation se développait, et l'article de l'Édit de Pîtres, — sous Charles le Chauve, — qui limitait le nombre des ateliers, ne fut même pas appliqué. Malgré les efforts des réformateurs carolingiens, la nation restait sous l'impression des désordres monétaires de la mauvaise monnaie, d'autant plus qu'il y en avait de nombreux spécimens en circulation. Les Capitulaires de 819 et 829 prescrivirent en vain de punir ceux qui refusaient la bonne monnaie, sans doute parce qu'ils ne savaient pas la distinguer de la mauvaise (. . . *de bonis denariis quos populus non vult recipere*).

D'autre part, les empereurs avaient déjà commis la faute de concéder des droits monétaires à diverses églises, Châlons-sur-Marne, Besançon, Langres, Dijon, Laon, Tournus, Corbie, Le Puy, Autun, Saint-Denis, Tours, etc. Et naturellement ces nombreuses églises devenaient à peu près libres de modifier les conditions d'émission de leurs espèces. Au surplus, il n'est pas certain que toutes ces concessions aient été régulières et authentiques. Mais l'autorité du souverain diminuait chaque jour. L'Édit de Pîtres (*c.* 22) constatait déjà, en 864, le rôle fâcheux des fonctionnaires carolingiens, comtes et *missi*.

Les monnaies des Carolingiens, depuis la seconde moitié du IXe siècle, jusqu'au dernier de ces princes, Louis V (987), permettent de comprendre comment ce droit essentiel de la fabrication des monnaies allait échapper à la Royauté.

Les efforts pour enlever aux comtes les prérogatives qu'ils avaient usurpées, bien que tentés déjà par Charles le Chauve (en 871), eurent peu d'effets durables.

V

A l'avènement de la dynastie capétienne, le monnayage français était en complète désorganisation. Cette situation était l'image même du royaume de France, où l'autorité royale ne s'exerçait plus guère

entièrement que sur un domaine correspondant à peu près à ce que l'on appela, peu de temps après, l'Île de France.

Partout, les comtes avaient fondé des dynasties locales, et s'étaient arrogé entièrement divers droits, dont celui de frapper monnaie. Pour ne pas rompre avec les habitudes des populations, les espèces conservèrent d'abord, plus ou moins clairement, le type carolingien. Le Limousin et la Marche se servaient de deniers, de plus en plus dégénérés, où le nom du roi Eudes persista longtemps. De même, en Poitou, on garda les types de Louis le Pieux et de Charles le Chauve. A Angoulême et à Nevers on conserva le nom de Louis d'Outre-Mer.

Mais, quoique le type eût généralement une apparence carolingienne, par le maintien même des monogrammes (celui d'Herbert, au Mans, par exemple), on vit paraître souvent les noms complets des usurpateurs: Sanche et Guillaume, à Bordeaux; Guillaume, à Toulouse; Foulques Nerra, à Angers; Guillaume, à Lyon, etc.

Peu à peu, le monnayage féodal se dégagea de l'imitation des types carolingiens, en même temps que le module et l'aloi des espèces décroissaient. Et ce phénomène constant devint la cause de troubles profonds. Ainsi, vers 1110, les deniers de cuivre argenté de Gaudric, évêque de Laon, ruinaient bien des gens, et les oboles d'Amiens ne valaient pas mieux, au dire du chroniqueur Guibert de Nogent. Et, en 1103, en Aquitaine, une perturbation du même genre avait appelé une réaction, puisque la 'Chronique de Saint-Maixent' en parlait en ces termes: *fuit magna tribulatio et nummi argentei pro aereis mutati et facti sunt.*

Assurément, la multiplicité des monnaies n'était pas l'unique obstacle à un large commerce: les compétitions entre les comtes des diverses provinces, et les barrières nombreuses entre ces provinces, péages et obstacles de tous genres, tout cela contribuait à augmenter le chaos monétaire.

Et cependant, il existait des régions où le besoin d'une bonne monnaie stable se faisait sentir.

La monnaie au nom des Centulle, premiers vicomtes du Béarn, eut une grande vogue, dès le XIIe siècle. On la rencontre presque partout, même en Orient où les Croisés la transportèrent; elle fut imitée dans le Midi de la France, particulièrement à Toulouse. Mais ces espèces, fabriquées à Morlàas, restaient toujours de bon poids et de bon aloi. Aussi, en 1290, l'évêque de Bazas et la Communauté de cette ville écrivaient au roi Édouard Ier, qui avait voulu interdire le cours de cette monnaie. Dans le document, il était dit que la *moneta morlanensis* avait cours dans la cité de Bazas et dans tout le Bazadais depuis si longtemps que l'on n'avait pas souvenir

du contraire (. . . . *et a tanto tempore citra de cujus contrario memoria non existit*).

Ainsi, peu à peu, le commerce recommençant à se développer, on sentit la gêne produite par ces monnaies hétéroclites, dont la valeur relative était presque impossible à déterminer. Pour quelques-unes, on était mieux fixé, il est vrai; ainsi le denier du Mans valait le double de ses voisins et cette prééminence lui fut encore reconnue presque complètement par l'ordonnance de Louis X, en 1315: ce rapport monétaire était en effet utile à la circulation des espèces. La monnaie étant un puissant instrument de gouvernement, les rois de France, conseillés d'ailleurs par des hommes comme Nicole Oresme, avaient commencé, dès le XIIIe siècle, à mettre de l'ordre dans le chaos. Saint Louis, en 1262, avait rendu une ordonnance où on lisait: 'Il est esgardé que nuls ne puisse faire monnaie semblant à la monoie le Roy, que il n'y ait dessemblance aperte' (that is to say: 'no money like the King's money, unless it has real dissimilarity').

Il est probable que le gros tournois, créé par saint Louis en 1266, comme multiple du denier tournois, fut d'abord surtout une monnaie internationale. Sauf dans la vallée du Rhône, qui échappa longtemps à l'autorité royale, on imita peu cette forte monnaie de bon argent; mais, en revanche, de nombreux gros, très semblables à celui de France, naquirent dans les Pays-Bas, sur les bords du Rhin, et ailleurs encore.

Philippe le Bel trouva nécessaire de donner, en 1305, un mandement qui interdisait à ses vassaux de frapper des monnaies à un aloi différent de celui des espèces royales. Et, dix ans plus tard, l'ordonnance de Louis X voulut réglementer les titres, poids et types d'une trentaine de monnaies provinciales, même de feudataires puissants, comme les ducs de Bretagne et de Bourgogne, les comte de Nevers et vicomte de Limoges, etc. Pour diverses raisons, les seigneurs ne tinrent guère compte de l'ordonnance; Philippe V reprit la lutte: elle devait être longue.

VI

Quand la dynastie capétienne fut parvenue à reconstituer une grande partie du royaume de France, elle essaya de prendre l'avantage sur divers puissants seigneurs féodaux. Mais les désaccords avec les comtes, puis avec les villes des Flandres, amenèrent la Guerre de Cent Ans.

Alors, la monnaie, qui, pendant une partie du règne de Philippe VI de Valois, paraissait animée par le souffle d'une véritable renaissance artistique, cette monnaie entra dans un labyrinthe de difficultés,

inhérentes aux troubles politiques et aux conséquences des défaites. On s'en aperçut déjà lors des multiples émissions d'espèces diverses, sous Jean le Bon, après 1356 (Bataille de Maupertuis), spécialement pour les gros, dits 'Compagnons', qui en peu de mois furent diminués de moitié.

Le bouleversement du système monétaire français paraît encore plus frappant si l'on examine de près le monnayage de Charles VI. Après Azincourt, le gros de 20 deniers, dit 'Florette' (à cause des trois fleurs de lis placées sous la couronne), entre 1415 et 1422, tomba de 8 deniers à moins d'un denier d'aloi. Cette monnaie, souvent mal frappée sur des flans irréguliers, avait toujours une valeur nominale de 20 deniers; mais, au cours de ses dizaines d'émissions, dans de trop nombreux ateliers, elle devint une pièce détestable, qui était presque entièrement de cuivre. Malgré les efforts méritoires d'une école de numismates français, qui ont travaillé beaucoup et utilement pour l'histoire des ateliers officiels, je ne suis pas certain qu'il soit toujours possible de faire le départ des produits des émissions officielles et de celles que des faux-monnayeurs n'ont pas manqué de créer. Il y avait trop de bénéfice à retirer d'une telle fraude, pour que les faussaires, — quelquefois sans doute de hauts personnages, — aient hésité à émettre des florettes, même avec des 'différents' plus ou moins clairs.

L'Université, d'après la *Chronique du Religieux de Saint-Denys*, avait déjà fait des réclamations sous Charles VI, au sujet des monnaies affaiblies. Et, en 1419, le changement de gouvernement n'avait pas amélioré la situation. D'après le *Journal d'un bourgeois de Paris*, les Parisiens se plaignaient, de plus en plus, du numéraire dont ils disposaient. 'C'étaient des blancs' qui ne valaient 'mie trois deniers et avec ce estoient rouges comme meriaux' ('. . . worth only three deniers and into the bargain as red as tokens').

Dans cette tourmente, la monnaie d'or avait été respectée relativement et, si, au cours des guerres civile et étrangère, Charles VI avait laissé affaiblir l'écu d'or, il avait essayé de le relever après le traité de Troyes, en 1420. Mais Henri VI, en 1423, à six mois d'intervalle, émit des 'saluts' d'or de 63, puis 70 au marc, qui eurent une valeur respective de 25 sous, puis de 22 sous 6 deniers tournois. Charles VII, après avoir rétabli son autorité, s'efforça de remettre de l'ordre dans la monnaie, et Louis XI créa l'écu au soleil, qui réalisait un renforcement de l'unité d'or. Il fut durable, car il persista jusqu'au règne de Louis XIV.

Mais des dépréciations successives, inséparables d'événements de tous genres, ne cessèrent guère de modifier les conditions de la

circulation monétaire. Ainsi, il y avait toujours, sous Louis XII, un grand blanc, dont la valeur nominale était de 12 deniers tournois, comme celle du gros tournois de saint Louis; mais le blanc de Louis XII n'avait guère que le tiers de l'aloi de son ancêtre du XIIIe siècle, et, au lieu de 58, on en tirait 86 du marc d'argent.

Les premiers testons d'argent furent créés en avril 1513, pour suivre le mouvement, très développé en Espagne et en Italie, en faveur de la lourde monnaie d'argent; mais l'apparition de l'effigie royale, souvent maltraitée par les monétaires des ateliers provinciaux, rendit nécessaire un remaniement de l'organisation monétaire.

La mode des médailles, très développée en Italie, depuis les belles créations de Pisanello (Antonio Pisano), avait gagné la France dès le règne de Louis XI. Aussi, il y avait à Paris des graveurs et médailleurs capables de faire de belles effigies royales, et c'est pour cette raison que furent créés le graveur général des Monnaies de France en 1547, puis le contrôleur général des effigies en 1572.

Mais la monnaie divisionnaire resta toujours livrée aux soubresauts de la situation politique. Le douzain, descendant dégénéré du gros tournois, avait baissé d'aloi, depuis François Ier jusqu'à Henri III, tout en diminuant progressivement de poids.

Les troubles religieux, suivis de ceux de la Ligue, ramenèrent cette multiplication d'ateliers irréguliers et non soumis à l'autorité royale, même nominale. La disette de petite monnaie, dont on connaît des exemples vers le même temps, favorisait naturellement l'éclosion de ces officines.

Le Connétable de Montmorency fit frapper, dans plusieurs villes du Midi, vers 1586, des pièces de 6 blancs, pour payer les troupes de la Ligue; le Maréchal de Joyeuse en fit d'autres à Narbonne et à Toulouse; l'Amiral Bernard de Nogaret en émit à Sisteron et à Toulon. L'exemple fut contagieux et divers gentilshommes de la Provence osèrent fabriquer publiquement des espèces de ce genre, qu'on appelait couramment *pignatelles* et qui, de 24 deniers, descendirent à 6 et même moins. Ajoutez à cela que diverses seigneuries d'Italie imitaient aussi la menue monnaie divisionnaire, le liard, et l'on pourra avoir une idée du chaos que représentait la circulation monétaire en France à l'avènement de Henri IV: c'était une situation analogue à celle que connut l'Allemagne jusque vers 1630, au temps de la 'Kipperzeit'.

VII

Henri IV commença une restauration qui se poursuivit sous Louis XIII. Les espèces françaises devinrent si remarquables par la

gravure et la fabrication, sous Louis XIV, qu'elles fournirent des modèles à beaucoup d'états d'Europe. Vers la fin du règne du 'Grand Roi', des guerres qui furent glorieuses, mais souvent désastreuses, avant la victoire de Denain en 1712, jetèrent de nouveau le trouble dans les monnaies de la France.

L'autorité royale se crut contrainte d'en revenir au système des mutations des espèces. Et en voici un exemple: en 1693, au cours de la Campagne des Flandres, on émet l'écu aux palmes, qui vaudra 3 livres 12 sols. Mais cette pièce est presque toujours surfrappée sur des écus aux huit L, émis depuis 1689, pour 3 livres 6 sols, écus qui, qualifiés de 'reformés' dans les états de fabrication contemporains, étaient eux-mêmes souvent surfrappés sur des écus antérieurs valant 3 livres. C'est donc toujours les mêmes flans de métal, et, comme ils avaient déjà circulé et perdu de leur poids, la valeur intrinsèque était réduite, même avant la hausse proclamée officiellement.

En 1704, au cours d'une des phases les plus critiques de la guerre de la Succession d'Espagne, on émit de nouveaux écus aux 8 L, qui étaient du même titre (12 deniers) et du même poids (9 au marc) que ceux fabriqués au commencement du règne; mais les écus de 1704 valaient 4 livres au lieu de 3.

Sous Louis XV, les écus, diminués de poids, sinon de titre, valurent 6 livres. Et il y eut, sous l'administration de Law ('Lass'), fermier général des Monnaies, un bouleversement lié à la création des billets de la Banque. Au cours de l'année 1720, une quarantaine d'édits du Roi et d'arrêts du Conseil d'État ordonnèrent des fabrications monétaires ou modifièrent le cours des espèces en circulation.

La Révolution de 1789 amena la disparition de la monnaie d'or, qui se cachait; et l'on créa alors en 1791 et 1792 des monnaies particulières, qui, sous des noms divers, étaient destinées à remédier, dans le commerce, à l'absence du numéraire légal. Il y en eut d'une douzaine de maisons dont la plus connue est celle de Monneron frères: ce n'était pas une innovation, puisque, dès le XVIIe siècle, les 'tradesmen's tokens' avaient pris une large extension en Angleterre.

Quand la circulation monétaire française ne fut plus guère constituée que par les 'billets de confiance', la monnaie locale se développa, revenant en quelque manière à une période médiévale, et des centaines de communes de tous les départements français émirent des 'billets de confiance', de valeurs diverses. Ils furent retirés quelques années plus tard et brûlés en grand nombre.

Le premier Empire redonna une monnaie stable à la France et

les changements ne l'altérèrent pas jusqu'au moment de la funeste guerre de 1870, où reparurent les monnaies locales, comme, du reste, au cours de la dernière guerre de 1914–18, pendant laquelle se développa une large circulation de billets locaux et de pièces métalliques, sans valeur intrinsèque.

Après tant d'exemples réitérés de chutes et de restaurations monétaires, est-il téméraire de penser qu'il est possible de formuler encore une loi supplémentaire pour l'histoire des monnaies? Une espèce monétaire, qui a subi de multiples abaissements, tend à disparaître, pour être remplacée par d'autres unités dont le sort sera probablement le même. Je citerai seulement le *sou*, qui, à sa naissance, fut le *solidus* d'or, eut, ensuite, une nouvelle existence comme monnaie d'argent, sous le nom de 'gros' ou sou tournois de douze deniers; puis, de nouveau, il alla en s'amenuisant et devint une pièce de billon, dite aussi 'douzain', et termina son existence comme numéraire de bronze. Et, parallèlement, le denier, qui avait été d'argent, puis de billon, se transforma en cuivre avant de perdre la vie.

Ainsi, il en est des monnaies comme de toutes les productions de la Nature: l'âge les épuise et les use.

Et comme l'a dit notre grand Montaigne: '. . . toutes choses mortelles vont coulant et roulant sans cesse; ainsin il ne se peult establir rien de certain. . . .'

LA CONCESSION DU DROIT DE MONNAIE A SAVARY DE MAULÉON PAR LE ROI D'ANGLETERRE, DUC D'AQUITAINE, ET LES RAPPORTS DU POITEVIN AVEC LE TOURNOIS[1]

A. DIEUDONNÉ

(*Planche XX*)

LES concessions du droit de monnaie, octroyées par d'autres que l'Empereur ou le roi de France, sont rares en numismatique française.[2]

Quand nous voyons les villes flamandes de Douai, Lille, etc., en possession du droit de monnaie,[3] nous pouvons supposer que, à moins de l'avoir usurpé, elles le tenaient de la libéralité du comte de Flandre,[4] mais il existe peu de témoignages probants à ce sujet: on sait cependant que, Guillaume Cliton ayant abandonné par diplôme 'sa' monnaie aux bourgeois de Saint-Omer, son successeur a déclaré aussitôt la reprendre,[5] ce qui signifie peut-être simplement que le comte les avait autorisés sa vie durant à frapper à leur bénéfice sa monnaie comtale, comme ses prédécesseurs en auraient usé, semble-t-il, avec les abbayes de Saint-Bertin de Saint-Omer et de Bergues-Saint-Vinoc.[6]

Les ducs d'Aquitaine, Guillaume VIII à la fin du XIe et Guillaume IX au XIIe siècle, confirmèrent le droit de monnaie à l'évêque d'Agen, qui se serait fait octroyer ce privilège du temps d'Arnauld de Boville,[7] mort en 1049.

[1] Bibliographie: Du Cange s.v. *Monetæ baronum* (Pictavensium Comitum), *Pictavina*, *Pictavenses*, *Pictavini*. Lecointre-Dupont, *Essai sur les m. du Poitou*, Poitiers, 1840. Le même dans *Rev. num.* 1838, 186 (reproduction modifiée); 1848, 452 (le Denier à l'S de Savary). Poey d'Avant, *M. féodales de Fr.*, t. ii, pp. 1–39. E. Boutaric, *S. Louis et Alfonse de Poitiers*. Le même, 'Hist. monét. d'Alf. de Poitiers', dans *R.N.* 1868, pp. 285, 365. E. Caron, *M. féod. franç.*, pp. 127–42. A. Molinier, *Correspondance d'Alf. de Poitiers* (Doc. inéd. de l'hist. de Fr.), 1894. A. Engel et R. Serrure, *Traité de num. du moy. âge*, t. ii, pp. 422–5. L. Hewlett, 'Anglo-Gallic Coins', dans *Num. Chron.* 1905, p. 364; 1906, p. 267. A. Dieudonné, 'Compte de fabrication à Montreuil-Bonnin', dans *Rev. belge num.* 1924 (= mes *Mélanges*, t. iv, n° iii). Le même, *Manuel des m. féod. franç.* 1936, pp. 334–8 (Poitou) et 45, 336 (Poitevine).

[2] Mon *Manuel des m. féod.*, p. 7, et 309 n. 2.

[3] *Manuel*, p. 185. Cf. V. Gaillard, *M. des comtes de Fl.*, p. 83 et suiv. Quant aux villes de la Flandre impériale, elles peuvent avoir reçu ce droit de l'empereur.

[4] Texte dans A. Engel et R. Serrure, *Traité*, t. ii, pp. 506–7.

[5] *Manuel*, p. 79. Cf. A. Hermand, *Hist. monét. de l'Artois*, p. 96.

[6] *Manuel*, p. 183.

[7] *Manuel*, p. 221. Cf. Serrure, *Traité*, t. ii, p. 434.

Enfin le roi d'Angleterre, duc d'Aquitaine—et peut-être encore plus comme duc d'Aquitaine, héritier des anciens rois du pays, que comme roi d'Angleterre—a fait une concession à Savary de Mauléon en 1215,[1] concession que nous allons étudier, au seigneur de Thouars en 1226.[2] Comme, à cette dernière date, Henri III ne possédait plus que quelques châteaux en Poitou, on présume qu'il a voulu se faire par cette libéralité un allié dans sa tentative pour reconquérir l'Aquitaine; il échoua, et on n'a pas revu ces monnaies, qui n'ont peut-être jamais été frappées.

Toute autre fut la concession à Savary.[3]

La numismatique de Savary, seigneur de Mauléon, a été renouvelée récemment par la découverte de sa Maille tournois, entrée au Cabinet de France, comme don de M. L. Farigault, de Chatellerault, à qui nous devons la découverte du précieux Denier de Hugues Capet à Paris,[4] et de diverses monnaies de Robert le Pieux.[5]

✠ SAVARICVS Croix.
R. MALLEONIS (l'M en forme d'N pointée au centre).
Châtel tournois à trois besants et de forme carrée.
Æ.—0 gr. 34. (Pl. XX, 12.)

(On sait que le châtel tournois était l'ancien temple des Deniers de Charlemagne, réduit dans le monnayage de l'abbaye de Saint-Martin de Tours à une figure schématique.)

Écartons d'abord de la numismatique de Savary de Mauléon les nos 2604 (Pl. LV, 21) et 2605 (Pl. LV, 22) de Poey d'Avant, *O.* II S. LEO CIIII, Trois croisettes. *R.* IHESVS. Croix—encore maintenus par Caron,[6] mais que Serrure a rejetés,[7] et qui sont de Léon en Espagne, ou d'ailleurs, mais qui n'ont rien à voir avec Savary.

Restent: 1° le Denier à la légende de champ MET-ALO,[8] avec l'Obole (Cab. des Méd., Pl. XX, 10), dont il y eut trois émissions: sans différent, avec globules, avec croissants:[9] 2° le Denier à l'S[10]

[1] *Manuel*, p. 338.
[2] Texte du diplôme dans *Rev. num.* 1838, p. 198 n., et Serrrure, *Traité*, t. ii, pp. 506–7.
[3] Quant au comte de la Marche, qui a été mis en cause, il n'avait pas besoin de concession: il héritait du droit monétaire de l'atelier d'Angoulême (*Manuel*, p. 292).
[4] *Rev. num.* 1922, p. 49 (= mes *Mél. numism.*, t. iii, no viii).
[5] *Rev. num.* 1924, *P.-V.*, xvi, xxv–xxvi.
[6] Caron, p. 141.
[7] Serrure, p. 425 n.
[8] Poey d'Avant, *M. féod. de France*, nos 2600–2.
[9] C'est sans doute à la première que s'applique, dans une charte des Templiers de la Rochelle, l'appellation 'Vieux-Savaris', d'après Lecointre-Dupont, p. 108.
[10] Poey d'Avant, no 2603.

(Pl. XX, 11). Notre Maille ou Obole, jusqu'ici inconnue, s'ajoute à cette liste et vient illustrer heureusement les textes, comme on va le voir.

Mauléon, nommé aujourd'hui Châtillon-sur-Sèvre, était une seigneurie possédée, depuis le XIe siècle, par une famille alliée aux vicomtes de Thouars. Sa puissance s'était accrue par la faveur des rois d'Angleterre, ducs d'Aquitaine. Le père de Savary, Raoul, fut le sénéchal de ces princes en Poitou. Savary devint seigneur de Mauléon vers 1215.

'Sachez', écrivait le 27 mai de cette année Jean Sans-Terre à tous ses sénéchaux, maires et notables de Poitou, Angoûmois et Gascogne, 'Sachez que nous avons accordé à notre amé et féal Savary de Mauléon que sa monnoie ait cours dans toutes nos terres de Poitou, Angoûmois et Gascogne, tant que ce sera notre plaisir, pourvu toutefois qu'elle vaille en pois et en loi la monnoie poitevine. . . .'[1]

Des lettres patentes, du 31 août suivant, complètent les précédentes. 'Le roi aux archevêques, évêques, abbés, comtes, vicomtes, barons et chevaliers de la Rochelle, d'Angoulême, de Niort et de Saint-Jean d'Angely, et à tous autres maires, officiers et notables des cités, châteaux et villes du duché d'Aquitaine, salut. Sachez que nous avons accordé à notre amé et féal Savary de Mauléon, à lui et à ses hoirs à perpétuité, le droit de frapper dans sa terre monnoie de la valeur des Tournois et de faire circuler cette monnoie dans tout le duché d'Aquitaine. . . .'[2]

Et encore le 6 novembre, à Renaud de Pons, sénéchal du Poitou: 'Nous vous mandons de faire circuler dans tout votre ressort, en Poitou, la monnoie de notre amé et féal Savary de Mauléon, qu'il a fait frapper en vertu de concession et octroi de notre part, dont il a nos lettres patentes, et de ne laisser battre dans votre dit ressort aucune autre monnoie, sauf nos espèces et celles de nos barons qui souloient y avoir cours avant que nous eussions fait cette concession audit Savary.'[3] Et enfin, le 14 septembre 1216: 'Nous vous commandons', était-il écrit au maire et notables de Bordeaux, 'de recevoir la monnoie de notre ami et féal Savary de Mauléon, si elle est d'argent à la loi de la monnoie tournois.'[4]

On remarquera que le premier document parle d'une monnaie qui vaudra la monnaie poitevine; le second et le quatrième, d'une monnaie de la valeur des Tournois; le troisième, de la monnaie, en général, de Savary de Mauléon.

[1] Lecointre-Dupont, p. 103 et pièce justif. n° 3.
[2] Le même, ibid., p. 104, pièce n° 4.
[3] Le même, ibid., p. 105, pièce n° 5.
[4] Le même, ibid., p. 106, pièce n° 6.

Par conséquent, la monnaie MET-ΛLO est celle que Savary a fait frapper, pour circuler en vertu de la tolérance première, aux types et titre de la monnaie poitevine du roi d'Angleterre, duc d'Aquitaine; la monnaie au châtel est celle qu'il a fabriquée d'après le privilège de concession, semblable au Denier de Saint-Martin de Tours. Quant à la monnaie à l'S, c'est une licence qu'il se permit, comme il arrivait souvent aux barons bénéficiaires, pour se donner un type propre, cette S, qui avait trouvé faveur autrefois comme abrégé de *Sedes*, siège épiscopal,[1] et qui ici désigne l'initiale du nom du seigneur.

Cette histoire, très simple, a été compliquée à plaisir. Lecointre-Dupont veut que Savary ait reçu le droit de monnaie dès 1209, en même temps que le titre de sénéchal. Pourquoi? Parce que, dit-il: 1° La lettre du 27 mai 1215, la première connue, qui ne parle que d'un droit de circulation, suppose l'existence d'une concession antérieure du droit de battre monnaie. Or cela ne s'impose pas. Le seul fait d'accorder la circulation à ces espèces pouvait impliquer la reconnaissance de fait d'un droit de fabrication tacitement accepté. Le diplôme confirmatif[2] d'Honorius III de 1224, qui énonce le droit de battre monnaie accordé par 'le même roi' (Jean Sans-Terre), pouvait s'appliquer uniquement, si on s'attache aux mots, à l'acte du 31 août, qui énonce ce droit: 2° Savary, fils d'un comte décédé, non encore comte en 1209, parce que la loi de succession de ce pays faisait régner son oncle, avait droit, de la part du souverain à qui il avait promis son alliance, à une compensation. Mais cet argument, on le sent, est de pure appréciation. 3° Savary n'a pas eu le temps de développer son monnayage de Poitevins entre le 27 mai 1215 et le 31 août de la même année, où il leur substitua le Tournois.[3] Mais qui dit qu'il ait cessé sa première fabrication au moment d'engager l'autre? Qui lui en faisait une loi? Est-ce que le second diplôme énonce ou implique la cessation de la frappe des Poitevins? Nullement. 4° On a trouvé toutes les monnaies de Savary à Niort et il semble naturel qu'il ait usé de cet atelier étranger à la seigneurie de Mauléon avant de frapper 'dans sa terre', comme il en acquit le droit en 1215. Cela encore n'est pas une raison décisive. C'est peut-être l'effet d'un pur hasard que le lieu des trouvailles soit exclusivement Niort. Il est possible aussi, et très plausible, que Savary, même devenu seigneur de Mauléon, ait préféré frapper sa monnaie à Niort, qui était un atelier réputé, depuis longtemps bien installé, où il

[1] M. Prou, *Cat. des m. carol.*, p. 91; mon *Manuel*, p. 31. En somme, c'était un type épigraphique, comme le PIC-TAVIE-NSIS.

[2] Lecointre-Dupont, p. 107.

[3] *Rev. num.* 1847, p. 24. C'est M. de La Vergnée qui parle, mais Lecointre-Dupont, qui a rapporté ses paroles, ne les conteste pas.

pouvait trouver des conditions avantageuses. C'est ainsi que les sires d'Anduse et Sauve ont frappé monnaie à Sommières. L'atelier de Niort, qui, ainsi que Saint-Jean d'Angely, doublait ou remplaçait[1] Melle pour l'usage de l'empreinte melloise, avait éte affermé aux moines clunisiens;[2] il fonctionnait pour Jean Sans-Terre:[3] il pouvait accepter les commandes de Savary.

Conclusion: les monnaies de Savary ont été frappées par lui comme seigneur de Mauléon, probablement à Niort.

Après la mort de Savary, la seigneurie de Mauléon tomba dans les mains des vicomtes de Thouars, du chef d'Alix, fille de Savary, qui avait épousé Gui Ier, vicomte de ce lieu, et il n'est plus question de la monnaie de Mauléon.[4] Nous devons donc nous borner à étudier les frappes consécutives aux diplômes de 1215 et 1216: elles font partie de l'histoire des monnayages poitevin et tournois.

Or quel était, en 1215, le rapport du Poitevin au Tournois et l'état de leurs relations? La découverte de notre monnaie nous aide à écarter l'hypothèse de Boutaric,[5] qui voyait, dans les deux concessions à Savary, celle d'une monnaie de même valeur, appelée la première fois Poitevin pour convenir au Poitou et provinces voisines, la seconde fois Tournois pour s'appliquer à l'Aquitaine. Ce n'est pas en vain que le document parle ici du Poitevin, là du Tournois, et ce n'est pas en vain que Savary a frappé à deux empreintes différentes.

Si Savary de Mauléon emploie le type MET–ĀLO, cela prouve que de tels Deniers circulaient encore en nombre en 1215 (Pl. XX, 1; Obole, XX, 2).[6] Cependant Richard Cœur-de-Lion lui avait substitué dès 1189 le Denier à la légende PIC–TAVIE–NSIS, en trois lignes dans le champ, avec son nom *Ricardus* au droit (Pl. XX, 3; Obole, XX, 4).[7] Il n'y a pas de monnaie au nom de Jean Sans-Terre. Il a donc continué le Denier *Ricardus* — car celui-ci a de nombreuses variétés,[8] et ce type de revers devait être adopté par Alfonse de Poitiers

[1] S'il faut en croire un document de 1020, Melle avait été cédé dès cette époque par le comte de Poitou au comte d'Angoulême.

[2] *Manuel*, p. 335; *Rev. num.* 1847, pièce n° iii, p. 29, d'après le *Spicilegium* de Luc d'Achery.

[3] *Rev. num.* 1847, pièce n° i, p. 28. Lecointre-Dupont dit que Richard Cœur-de-Lion avait établi son atelier à Montreuil-Bonnin; mais cette seigneurie appartenait au comte de la Marche et n'a été cédée qu'en 1242, à Alfonse de Poitiers.

[4] Lecointre-Dupont, p. 110.

[5] E. Boutaric, *Saint Louis et Alfonse de Poitiers*, p. 153.

[6] Lecointre-Dupont et Caron se sont efforcés d'établir, d'après les trouvailles, une chronologie des MET–ĀLO. (Cf. A. Richard, *Trouvaille, compt. rend.* dans *Rev. num.* 1908, p. 138.) On a dit que le croissant et l'étoile avaient été les emblèmes favoris des Plantagenets.

[7] *Manuel des m. féod.*, p. 337.

[8] Poey d'Avant et Mr. L. Hewlett ont dressé le bilan de ces variétés.

(Pl. XX, 5; Obole, XX, 6)—mais aussi Jean Sans-Terre a-t-il pu reprendre entre temps le Denier MET-ĀLO, et cela d'autant plus volontiers que la pièce de son frère aîné ne marquait pas un affaiblissement, au contraire.

En effet, le MET-ĀLO, après avoir participé, dans le début, de la richesse de fin des Carolingiennes, avait subi des altérations attestées par la Chronique dite de Maillezais ou de Saint-Maixent,[1] en 1103, 1112 et 1120, et, sans doute, le créancier de 1105 fait bien de spécifier que le paiement aura lieu en *Pictavienses veteres*;[2] mais notre narrateur exagère, comme la plupart de ses confrères, en disant que les Deniers étaient devenus tout cuivre. Lecointre-Dupont insinue que le Poitevin fut discrédité par le grand nombre de Deniers faux qui circulaient sous son nom, mais il en fut ainsi dans tous les monnayages. Nous savons qu'on appela généralement poitevine, en tout pays, le quart de denier, mais j'ai tout lieu de croire que la pièce de qui provenait cette appellation n'avait jamais été qu'un quart de Denier, plus répandu dans le monnayage poitevin que dans la plupart des autres.[3] Enfin Richard paraît avoir travaillé au relèvement du Poitevin même avant de lui donner sa nouvelle empreinte, si nous en croyons un texte où le Denier de Melle serait qualifié de 'Enforçat'.[4]

Ces restrictions admises,[5] on s'explique que les analyses de Lecointre-Dupont n'aient reconnu au MET-ĀLO qu'un titre moyen de 360 millièmes, alors que celui des PIC-TAVIE-NSIS ressort à 388 millièmes.[6] Il est vrai que, à en juger par les exemplaires du Cabinet des Médailles, le poids des Deniers de la première série s'était maintenu un peu supérieur à ce qui fut dès le début celui de la seconde.

[1] Recueil des *Hist. de la Fr.*, 1103, 1112, 1120. C'est bien à tort qu'on a fait intervenir cette chronique dans l'histoire du monnayage de Louis VI et Louis VII (Le Blanc, *Traité*, p. 152). Je ne puis admettre non plus, avec Lecointre-Dupont, que la mention de 1103 s'applique à un renforcement.

[2] Lecointre-Dupont, p. 83.

[3] *Manuel des m. féod.*, p. 336. Une confusion pouvait aussi s'établir entre la Maille et la monnaie de Melle; on y remédiait à l'occasion par l'emploi de l'épithète *Masculi* (ibid.). Le nom des Poitevineurs, Poitevineresses (Lecointre-Dupont, p. 105; cf. Du Cange, *Pictavina*) désignait les billonneurs, les chipoteurs, coupant comme nous disons un sou en quatre, ou ne donnant que le quart de ce qu'ils devaient; il n'a rien non plus à voir avec les altérations du Poitevin.

[4] Texte de 1178–80 dans Lecointre-Dupont, p. 95 et pièce justif. nº 2.

[5] Expliquons-nous sur le dicton 'Foi d'Anglais ne vaut un poitevin', qui a été interprété comme la preuve que le Poitevin, à la suite de ses altérations, était tombé au-dessous de tout. D'abord, c'est là une de ces aménités comme les voisins en forgent volontiers pour leur voisin, telles que 'Lorrain traître à Dieu et à son prochain'. C'est de l'esprit facile. Puis, en regard de l'Esterlin, du Mansois, le Poitevin était la plus petite unité circulante; en le prenant pour terme de comparaison, on ne le ravalait peut-être pas plus au-dessous de son rôle qu'on ne prétend faire une fausse monnaie de notre sou quand on dit: 'cela ne vaut pas quatre sous'.

[6] Lecointre-Dupont, pp. 86 et 98.

Mais, tout compte fait, le Poitevin seconde manière fut une monnaie de renforcement en 1189; même, à supposer qu'il eût un peu décliné, il l'emportait sur le Denier tournois de 1215 de 300 millièmes légaux,[1] et Savary avait avantage à frapper ce concurrent; il y avait même doublement avantage parce que le Tournois se plaçait mieux.

La supériorité du fin n'est désirable pour une monnaie que lorsqu'elle représente un étalon bien caractérisé, par exemple le double du Denier moyen, comme le Mansois; or le surplus d'argent du Poitevin était loin de lui assurer la position de choix du Mansois,[2] cela le gênait plutôt à l'égard du Tournois.

La devise poitevine avait connu son apogée vers 1100.[3] Depuis, ces mutations retentissantes et ce changement de type, devenu nécessaire pour relever une monnaie qui tombait, avaient désorienté sa clientèle. Elle n'a pas été adoptée, comme l'Angevine, par les Plantagenets pour leur monnaie interdomaniale,[4] elle n'a pas progressé avec eux jusqu'à leur chute. Elle est passée sous silence, en Normandie, dans l'ordonnance sur la circulation de 1204,[5] et Philippe-Auguste travailla contre elle en faveur du Tournois devenu sa monnaie. Enfin elle était divisée contre elle-même, puisqu'un texte de 1221 mentionne *triginta solidos Pictavinorum veterum* où Lecointre-Dupont,[6] et nous l'approuvons, reconnaît des espèces du vieux type MET–ĀLO.

En 1241, à son avènement, Alfonse de Poitiers[7] fit une enquête; il veut savoir quelles sont les conditions du Poitevin, de l'Angevin, du Tournois.[8] Nous n'avons pas le texte de sa décision, mais nous voyons qu'il reprit la frappe des PIC–TAVIE–NSIS.[9] Il ne jugeait donc pas que le moment fût venu de renoncer au système local.[10]

En 1250, il se faisait envoyer des Poitevins en Terre-Sainte, et ces Poitevins sont additionnés, dans le compte que nous possédons,[11] avec

[1] Mon article: 'Les conditions du Denier sous les premiers Capétiens', dans *Bibl. Éc. Ch.* 1920. Il est probable que, vers 1215, le titre des Poitevins seconde manière avait dû se rapprocher de celui des survivants de la première, de façon à ce que le poids de fin des uns et des autres fût à peu près le même. La mutation de 1203, dont parle la Chronique, aurait eu cet effet.

[2] On sait que le Mansois circulait pour la moitié de l'Esterlin et le double de l'Angevin et du Tournois (A. Dieudonné, *Manuel des m. féod.*, pp. 14–15, d'après 'L'ordonnance de 1204', dans *Mélanges Schlumberger*, t. ii, p. 328).

[3] Le Poitevin figurait en bonne place dans l'escarcelle du baron de la première croisade (Lecointre-Dupont, p. 78). [4] L. Delisle, *Bibl. Éc. Ch.* 1849, p. 183.

[5] A. Dieudonné, 'L'ord. de 1204 sur le change en Normandie', op. cit.

[6] *Rev. num.* 1847, p. 26.

[7] Sur Alfonse: E. Boutaric, *Rev. num.* 1868, loc. cit., *Manuel des m. féod.*, p. 337.

[8] Texte dans Lecointre-Dupont, p. 116. [9] Poey d'Avant, n°s 2576–81.

[10] Ici Lecointre-Dupont a commis une erreur en plaçant un bail qui: 1° est de 1251, époque du second type d'Alfonse; 2° concerne le monnayage de Toulouse.

[11] Lecointre-Dupont, pp. 155–7; *Rev. num.* 1847, p. 120.

les Tournois. C'est qu'ils valaient davantage en valeur intrinsèque et qu'on les ramène au Tournois, parce que leur rayonnement, disons leur crédit, est moindre.

De retour dans ses États, en 1251, Alfonse de Poitiers instituait un régime unitaire commun au Toulousain, au Poitou, au Riomois, à l'étalon du Tournois; son Denier, appelé dans la légende circulaire PIC–TAVIE–NSIS, mais au type du châtel, n'a plus de poitevin que le nom (Pl. XX, 7; Obole, XX, 8).[1]

En 1264, lorsqu'il fut obligé, sur l'injonction de saint Louis, d'abandonner le type tournois, ses Poitevins, à un type nouveau (Pl. XX, 9),[2] sont, ainsi que l'atteste le bail de 1270,[3] du système tournois comme les précédents, 'en tele manière et en tele condicion come elle (la monnaie) a esté faicte en nostre tems puis que la contés de Poitou vint en nostre mein'. Alfonse de Poitiers oubliait que, dans les dix premières années de son règne, il avait frappé à un autre étalon, mais il y avait si longtemps!

Or ce Poitevin-Tournois est légèrement mésestimé, en 1267, par rapport au Tournois du roi, toujours pour la question du change.[4] Pourtant sa valeur intrinsèque était bien celle du Tournois.

Telle est, rapidement esquissée, l'histoire monétaire du Denier poitevin. Nous voudrions y trouver l'explication de ce passage énigmatique, '7 deniers pour les tornes', d'un état de fabrication de l'année 1272, sous Philippe III, que nous avons publié jadis.[5] Mais la solution cherchée reste incertaine. Tout ce que nous affirmerons, c'est que ce mot 'tornes' est certainement le mot Tournois, et que l'état de fabrication concernait des Tournois, ceux du roi destinés à remplacer ceux d'Alfonse. Faut-il croire que, aux Deniers présentés à la fonte, se mêlaient encore des MET–ȺLO et des PICT–AVIE–NSIS, c'est-à-dire des pièces d'un aloi différent, dont le travail exigeait un supplément de frais[6] 'pour les Tournois'? Je présente cette hypothèse nouvelle à tout hasard.

[1] Poey d'Avant, nos 2582–9.

[2] Poey d'Avant, nos 2590–4.

[3] Lecointre-Dupont, p. 157; *Rev. num.* 1868, p. 297.

[4] E. Boutaric, *Rev. num.* 1868, pp. 383–6. Il y a deux opérations parallèles: 1° Au moment de partir pour la nouvelle croisade, Alfonse veut se munir de pièces d'or; il est obligé de donner un peu plus de Deniers en Poitevins qu'en Tournois; 2° il veut changer des Poitevins contre des Tournois, et on le lui fait payer. Au lieu d'opposer les Poitevins genre Tournois et les Tournois purs, on peut aussi se demander si les Poitevins nouveaux n'étaient pas assimilés aux Tournois et si les pièces ici dénommés Poitevins n'étaient pas un ramassis de Deniers anciens d'assez bonne loi mais déconsidérés par l'usage.

[5] A. Dieudonné, 'Compte de fabrication', op. cit. On y verra que j'ai quelque peu modifié mes idées sur l'histoire du Poitevin (pp. 19–20).

[6] D'ordinaire, de tels suppléments sont inclus dans le prix du marc, mais ce document sort de l'ordinaire, justement pour sa manière d'évaluer le prix du marc.

TREASURE-TROVE IN DENMARK

GEORG GALSTER

Note.—After having announced this paper I received the excellent book *Treasure-trove in Law and Practice from the Earliest Time to the Present Day* by Sir George Hill. This book includes a chapter on the Danish law, and I am sure that the treatment given by the Director of the British Museum is better than I could have done it. I shall therefore refer my readers to this book and only touch upon some special questions concerning coins found in Denmark. These remarks may also be considered as a supplement to the paper that my Swedish colleagues, Dr. Thordeman and Dr. Rasmusson, have read.

THE English laws on treasure-trove meet their analogue in the old Danish laws on *Danefæ*. This word is not—as might be supposed—derived from the name of the Danes, but the meaning is 'Dead man's property'. Definitions of *Danefæ* are found in two of the Danish Provincial Laws written down in the twelfth to thirteenth centuries, but they are undoubtedly much older. King Christian V's Danish Law of 1683 (Book V, chap. 9, art. 3) was based on these rules and is still in force: 'Gold and silver found either in mounds or behind the plough or anywhere else, and which nobody claims as his property, is called *Danefæ* and belongs to the King alone and to nobody else.' The principle applied in these directions respecting 'Dead man's property' is that everything to which nobody has a legal right belongs to the king.

In olden times finds were to be reckoned a not inconsiderable source of revenue for the king. The reason for particularly mentioning mounds as find-spots is the knowledge of the rich grave furniture buried with chiefs in earlier times and intended to accompany them on their last long journey to Odin's Valhalla. With christianization, however, the reverence for pagan ancestors vanished little by little and, if not held in restraint by a fear of evil spirits, the temptation was great to search for hidden treasures, although according to law they belonged to the king. Perhaps Sir George Hill is right in supposing that the Danish law was influenced by the laws of the Frankish Empire. A difference between the English laws of treasure-trove and the Danish laws is that *Danefæ* comprises not only hidden but also lost treasure, and consequently the smallest copper coin as well as any great mass of golden and silver coins.

The rules relating to *Danefæ* have always been enforced with much

rigour, although at times the king to some extent renounced his title to finds. Thus, the Holstein Duke Christian III, when he became King of Denmark, granted the nobility in 1536 such privileges as might be—and actually were—interpreted as a right to *Danefæ* found on their own estates. These rights, however, were abolished upon the introduction of the absolute monarchy in 1660. But in 1671 the king transferred his right to *Danefæ* to the newly elected counts by grants of privilege which became void in 1849 under the 'free constitution'.

Fiscal considerations still prevailed in the seventeenth century, but after learned men such as Ole Worm (author of *Monumenta Danica*) had awakened the interest of the Danes in the historical memorials of their country, and after Frederick III (who was elected king in 1648) had founded the Royal 'Kunstkammer', new points of view arose. Old coins were no longer so many ounces of gold or silver; they were, besides, historical memorials. Thus, it was, in fact, an historical interest which dictated the Royal Decree of the 22nd of March 1737 which renders more rigorous and comprehensive the rules relating to *Danefæ*: 'Gold, silver, metal, and all other treasures found either buried or hidden in the earth, in any forest, field, house, or elsewhere, and which nobody claims as his property, is called *Danefæ* and belongs to the King alone and to no one else.' In the same year it was decided that a commission should arrange, catalogue, and describe the Royal Cabinet of Coins which formed, perhaps, the greater part of the Royal Kunstkammer. In 1742 this commission, the Medal Commission, developed into the Royal Society of Sciences, and in the course of years its original object was forgotten. Still a desire to increase the collection caused the issue of the proclamation of the 7th of August 1752: 'Any one who shall find old coins or anything else which in consequence of its age or particular nature is supposed to be of any rarity, is to receive full payment according to the value in return for due delivery. If anybody ventures to conceal what has been found, he shall be liable to due penalty.'

This put an end to the purely fiscal point of view. Nevertheless, the old practice prevailed in so far as coin-finds were delivered through the local police to the Treasury. The latter sent the coins on to the Coin Cabinet which selected anything desired and returned the remainder. In most cases this was melted at the Royal Mint. The value, that is to say the metal value, was fixed by the Warden of the Mint and was paid to the finder through the local police.

The Royal Cabinet of Coins was as early as 1737 separated from

the Kunstkammer under the auspices of the Medal Commission and was in 1780 moved to the beautiful rooms in Rosenborg Castle. In 1842 Chr. J. Thomsen was appointed Director. He laid particular stress upon the maintenance of good relations with the public. A literal interpretation of the *Danefæ* laws might tempt a finder to offend against the decree by selling to dealers or private collectors in spite of the fact that both buyer and seller were liable to be heavily fined in case of detection. The practice therefore arose of granting the finder an additional reward beyond the legal compensation, viz. the metal value, a reward which was fixed in accordance with the care taken by the finder and the scientific value of the find.

Thomsen, too, was much interested in keeping up the direct connexion with the public and therefore caused finds to be forwarded direct to the Coin Cabinet, which in such cases paid the compensation and reward immediately to the finder. Should he so desire, he might also have a smaller or larger part of the coins returned to do with as he liked, provided, of course, that it did not conflict with the interests of the Cabinet. Duplicate coins which were not included in the collection were either sold to or exchanged with private collectors or foreign collections.

This system was in force until the Coin Cabinet, which was removed in 1867 from Rosenborg to Prinsens Palais, became a department of the National Museum. Since then (1892) it has been the custom to keep finds together, and consequently all finds from the eighteen nineties to date are stored in the Collection of Coins and Medals. Of late years, however, finds of more local interest have been deposited in the numerous provincial museums. Considering the high prices often paid for coins nowadays it must be admitted that there is sometimes a difference between the amount paid to the honest finder and the market price, and this may cause some friction. On the whole, however, the old rules have proved quite satisfactory, and the Danish farmers and labourers accept as a natural thing that the king, i.e. the state, has the ownership of old coins found in the earth.

I have now shown you the basis of our knowledge of the Danish finds and the question naturally arises: What is there to be found in the fertile Danish soil? It must at once be generally admitted that compared with southern countries the treasures found here are but small—indeed, they cannot compete even with the Swedish finds. Nevertheless, they are really worth consideration.

Coin-finds in Denmark are confined to definite periods. The burial of treasures is often closely connected with the wars which

swept like devastating tempests over the land and as a final result left the country reduced to half the territory of the old historical kingdom.

The finds show that the northern population was comparatively late in becoming acquainted with coins. The coins of the Greeks, which to some extent circulated among and were imitated by the Celts, did not even reach the Germans and far less the north. Something similar is true of the denarii of the Roman Republic and of the first emperors. Although presumably current in the Rhine valley, the few pieces found in Scandinavia were most probably introduced at a later date. The denarii found here date from the time after Nero's devaluation, the bulk of them being of Antoninus and Marcus Aurelius and comparatively few from the beginning of the third century. The Marcomannic War, which during the reign of Marcus Aurelius started the onslaught of the Germans, evidently marks some sort of epoch as far as German and Nordic treasure finds are concerned, but it is probable that the Roman coin-hoards were not brought to the north until half a century later, when the Burgundians had gone to the south-west towards the Rhine and the Goths to the south-east towards the Black Sea.

From the present territory of Denmark some fifty Roman finds are known, with a total of about 1,200 denarii, out of which fifteen finds comprising a little more than 500 pieces have been made in Bornholm, the island in the Baltic Sea which plays a similar part in Denmark to Øland and Gotland in Sweden.

After an interval of about 200 years precious metals were again brought to the north in larger quantities, but now (in the fifth to sixth centuries) it is gold that is desired. It was not put into circulation and presumably played quite a small part as a means of payment. Gold was accumulated as booty or by robbery, and hoarded as a treasure which was surrounded by mystery and veneration; and legends of such hoards were told many centuries later and still live, for instance in the epics of Beowulf and the Nibelungen.

A large number of Roman-Byzantine gold coins are perforated or provided with a loop for suspension. They were apparently used as ornaments rather than as bullion or for barter. Besides these coins, however, we find pieces which are imitations of the Roman Imperial medallions distributed as prizes to German soldiers in the Emperor's army. Of these northern gold bracteates about 250 have been found in Denmark, 175 in Sweden, and 150 in Norway.

Finds are rather few between A.D. 550 and 800. Thus only a single Merovingian coin has been found, in Jutland. Even after the begin-

ning of the Viking raids, about A.D. 800, importation of coins from the West is hardly traceable. The total finds of coins from Frankish provinces amount only to about a score. A satisfactory explanation of this fact is not easy to offer. A series of large finds is, however, connected with the tenth century and runs into the eleventh. Thus, the total result is:

Kufic coins (mainly from about A.D. 900 to 1000) more than 3,000 specimens.

Anglo-Saxon (mainly of Ethelred and Edward) more than 4,000 specimens.

German coins (mainly from about A.D. 950 to 1100) about 9,000 specimens.

So far as the Kufic dirhems are concerned details will be contained in the catalogue which Professor Østrup is making of Mohammedan coins in the Royal Collection of Coins and Medals. The Anglo-Saxon coins would—if catalogued—show a great number of more or less important varieties and provide a supplement to the work of B. E. Hildebrand. With regard to the German coins the Danish finds have certainly been of some help to Dannenberg's fundamental work. It is a task which we in Denmark are also desirous of carrying out by the publication of about fifty finds, and important preparations have been made already. In Denmark, as also in Norway and Sweden, the finds from about A.D. 900 to 1100 are those of the greatest scientific importance.

After 1066 or perhaps about 1100 a change is traceable in the nature of the finds: foreign coins are no longer found and the native Danish coins predominate almost entirely. About A.D. 1300, however, the native coin had become a debased copper penny and consequently foreign coinage was again imported to some extent—first the English sterling, then the French gros tournois. From about A.D. 1350 these were gradually replaced by the Hanseatic Witten which dominated until about A.D. 1430, when the Danish coin recovered its position. So far as this period is concerned Danish finds may yield some slight contribution to the history of international coinage.

In later times many foreign coins came to Denmark through the Sound dues and the Jutland cattle-trade. These coins (mostly thalers from Germany and the Netherlands) were hidden in great numbers in the earth during the desolating wars of the seventeenth century (viz. the Emperor's War (1625–9), the Thorstenson War (1643–5), and the two Carl Gustav Wars (1657–60)). The finds from that period—and from the last wars in the nineteenth century—are certainly of historical interest, but for the history of coinage we have, of course, other sources of information.

In this brief survey I have spoken mostly about hidden treasures, hastily buried in the earth when the enemy was in the land and the smoke from the burning farm of a man's neighbour came drifting over his fence. But besides this, bygone generations have for more than a thousand years scattered coins over the soil of Denmark, on the church path and the high road, in the home field and on the village green, in the nobleman's castle as well as in the cottage of the peasant. Coins have been cast into springs in gratitude for miraculous healing, and coins were put into the dead man's hand as a *viaticum* on his last journey. But when the plough of the peasant or the spade of the sexton breaks the seal of the earth, bringing up into the light of day such memorials of the past, the old laws of Denmark protect these small or great contributions to the history of our country, and to numismatic science in general.

WELCHES MATERIAL KANN DIE NUMISMATIK ZUR FESTSTELLUNG DER VERKEHRSGEBIETE IN DEUTSCHLAND IM 12. UND 13. JAHRHUNDERT LIEFERN?

W. HÄVERNICK

AUF einem Kongreß der Numismatiker sollen doch wohl in erster Linie grundsätzliche Fragen der Arbeitsweise und der Methodik zur Besprechung kommen. Aus diesem Grunde möge hier berichtet werden über einen Versuch, an Hand numismatischen Materials für die Zeit des 12. und 13. Jahrhunderts innerhalb des deutschen Reichsgebietes einzelne Verkehrsräume zu umreißen und im Kartenbild festzulegen. Dieses Kartenmaterial ist für die deutsche Kulturgeschichte deshalb von Bedeutung, weil man keine anderen Quellen besitzt, die die Feststellung solcher Verkehrsräume für die Zeit des Mittelalters mit voller Sicherheit ermöglichen. Wir benötigen solche Karten aber dringend, um Vergleichsmaterial für die Ergebnisse des deutschen Sprachatlasses zu erhalten und um feststellen zu können, ob diese der Gegenwart entnommenen Erscheinungen des kulturellen Lebens in den einzelnen Verkehrsräumen alt sind und welcher Zeit sie ihre Bildung verdanken. Damit kann die Münzwissenschaft zur wichtigen Quelle der 'Kulturkreisforschung' werden.

Die Einheit des deutschen Münzwesens, noch ein Erbe der Karolingerzeit, geht mit dem Erlahmen der Reichsgewalt um 1100 zu Ende. Es bilden sich in den einzelnen größeren Verkehrsgebieten besondere Münzumlaufsgebiete heraus, die aber mit irgend einem Territorium und dessen Ausdehnung nichts zu tun haben: es sind die von den natürlichen Grenzen und vom Lauf der Handelsstraßen in ihrer Ausdehnung bestimmten Verkehrsgebiete. Zu deren Feststellung stehen uns verschiedene Wege zur Verfügung. Die *Münzen* der verschiedenen kleinen Münzstätten zeigen, welchen Vorbildern sie nachgeahmt wurden, welche größere Münzstätte also für sie maßgebend war, denn man ahmte doch nur solche Münzen nach, die am Ort selbst gangbar und bekannt waren. Ferner finden sich in den *Urkunden* zahllose Erwähnungen von Münzsorten: es wird ausgemacht, daß dieser oder jener seine Zinsen in *denarii colonienses* (= Kölner Pfennigen) oder in *denarii treverenses* (= Trierer Pfennigen) entrichten soll. Wenn man dieses allerdings nur mühsam zu beschaffende Material sorgfältig sammelt und auf einer Karte

einträgt, in welchen Münzsorten an den einzelnen Plätzen Abgaben gezahlt werden, so findet man, daß die Verbreitungsgebiete der einzelnen Münzsorten sich scharf gegeneinander abheben. Und drittens bieten auch die *Münzfunde* Material, denn sie zeigen, welche Sorten tatsächlich im Lande umliefen. Doch ist bei dieser Quelle besondere Vorsicht angebracht, denn die meisten Funde sind zufällig von irgendeinem Reisenden zusammengebrachte Schätze.

Diese Epoche, in der die einzelnen Verkehrsgebiete erkennbar sind, endet um 1300, denn die eindringenden Heller, Turnosen und Florenen bringen die Pfennigprägung zum Erliegen und verwischen alle lokalen Unterschiede.

Nur ein Teil der Verkehrsgebiete des Reiches konnte bisher im Kartenbild festgehalten werden, so vor allem von den Rheinlanden,[1] Westfalen, Hessen, der Wetterau und Thüringen. Diese Karten sollen in Lichtbildern auf dem Kongreß vor den Fachgenossen zur Diskussion gestellt werden.

[1] Veröffentlicht sind von den bearbeiteten Karten nur vier; in
W. Hävernick, *Der Kölner Pfennig*, 1930.
ders., *Die Münzen von Köln*, Bd. I (bis 1304), 1935.
ders., *Das ältere Münzwesen der Wetterau*, 1936.

INTERNATIONAL CO-OPERATION IN NUMISMATICS

AUGUST v. LOEHR

WE wish to express our sincere gratitude to the Royal Numismatic Society, which has on the occasion of its hundred years of successful existence invited numismatists from all over the world to attend this meeting, and has by this promoted the indispensable international co-operation.

The scope of numismatics is such a vast and varied one that even the most important scientific institutions as well as the private collectors cannot progress without mutual assistance. To a great extent this is done by societies, enterprises, or publications on a *regional* basis. On them is founded the greater part of our scientific work. But it is insufficient. Already the traditional study of Greek and Roman coins, or medals of the Renaissance, demands a crossing of frontiers. With the modern tendencies in the field of the history of coins and money in medieval and modern times, it has become generally recognized that every nation and every country has had to undergo influences from the others, and that the development of currency, however different in details, has followed in most cases general rules and undergone similar phases. Therefore it is not only the private collector and institutions that have sought to get into touch with foreign numismatists in order to enlarge their material, but important scientific enterprises have sought systematic collaboration abroad, such as the *Corpus* of the Berlin Academy or the monumental work by the King of Italy.

As in the case of the more *scientific* field, the history of coins and currency, international co-operation has also become frequent in the *artistic* field of the medallic art and its ever-changing influence from artistic centres which shift from time to time.

Alongside of all these publications, exhibitions, periodicals, and catalogues, congresses constitute an especially important means of international co-operation. Prior to our Congress in London there were others: 1891 in Brussels, 1900 in Paris, 1904 in Rome, and 1910 again in Brussels. The comprehensive printed reports of these meetings give many valuable suggestions. The first Congress in Brussels was held on the occasion of the Jubilee of the Société Belge de Numismatique. The meetings in Paris and in Brussels 1910 were held in connexion with the great Exhibitions, and at the

Congress in Rome 'Numismatica' constituted the fourth section of the International Congress of Historians. At those meetings not only were papers read but it was also attempted to discuss matters of general interest. The second meeting in Brussels was especially successful in this under the presidency of the late M. Babelon *père* and of M. Victor Tourneur, whom we have the pleasure to greet to-day as Chairman of the International Commission for Numismatics. There it was proposed to standardize the terminology, to make it possible for the administrations of the public numismatic collections to eliminate duplicates, and especially to record coin-finds. Furthermore, the wish was expressed to teach numismatics at the universities, and that the numismatic societies in the different countries should deal with moneys of account. Then, special stress was laid upon the attention that should be given by the museums of art to contemporary medals. Many of these suggestions, even after twenty-six years, are still demanding consideration at the present time. Some had been dealt with previously. Blanchet and, in Rome, Luschin von Ebengreuth spoke at length about coin-hoards, and in Paris question 33 asked whether it was possible to entertain permanent relations between the numismatic societies in the different countries.

On this last point we have some experience. The Scandinavian associations have been united, and I believe that there used to exist in former times closer relations between the Netherlands and Belgium. It was an important achievement that already in 1906 the numismatic associations of Germany and Austria had amalgamated within the 'Deutscher Geschichts- und Altertumsverein' and formed a special section. It is beyond any doubt that this section IV, over which I had the honour to preside some years ago, has obtained a notable success, inasmuch as the interest in numismatics was remarkably promoted by meetings in different centres. On several occasions the administrative authorities have supported our suggestions, as was the case in Danzig and Cologne. Furthermore, a closer collaboration with the other historical sciences has been established by the selection of adequate lectures. As a result, it must be said that it would not be justifiable to set too much hope on the co-operation of the different associations, as their interests, for regional reasons, are too limited.

Relations that existed had been destroyed, to a great extent, by the Great War, and it was again this disaster which has taught numismatists many a lesson. The economic and financial crises of the War and post-War periods have hampered the circulation of

coined money, have brought forth many other means of payment, and, by this, have stimulated much reflection on the nature of coined or other money.

For the reconstruction of intellectual relations the Commission internationale pour la coopération intellectuelle has been created within the League of Nations, at Geneva, and Prof. Gilbert Murray elected president. In accordance with this commission, sub-committees have been constituted in every country and lately an institute has been established in Paris by the French Government. At first, it was the idea to base this Coopération intellectuelle exclusively on the universities and their teachers. This proved in many instances to be disappointing. On many sides, among others by the Austrian sub-committee, it was then pointed out that a similar international collaboration had existed for a long time at the great scientific institutions, in the archives, libraries, and at the important museums. For this purpose, the experience of the numismatic collections has been taken as a model. I had the honour to state the appropriate details at a session of the sub-committees in Warsaw in 1926 and at a session of the commission of the League of Nations at Geneva in 1929. Later, as a matter of fact, the institute in Paris and the Office international des Musées, which is becoming ever more independent, have been connected with the problems concerning the scientific institutions, primarily the art museums, and then with the collaboration in numismatic collections as well. The report that I had to make was published in vol. xx of *Mouseion* in 1932. I have explained my point of view that the important cabinets of numismatics should beyond purely descriptive work deal with the comparative history of money, and enlarge their collections and public exhibitions by comprehensive displays of the means of exchange and payment, such as precede coined money or follow it in its evolution. Medals should also be considered from the point of view of aesthetics and evolution, and technique should not be overlooked. For this purpose it will be necessary to establish collaboration between the numismatic cabinets and the administrations of the mints that issue the current coins and medals, and the activity of the authorities for the preservation of antiquities has to be enlarged in order to make sure that finds, historical or memorial records, and paper of credit of all kinds be not lost. In the following issues of the *Mouseion*, Messrs. Dally, Director of the Paris Mint, Nocq of the Salon de Paris, Amoros in Barcelona, Reichsantiquar Curman in Stockholm, Geheimrat Pick in Gotha, and, in a private message, Director Regling, Berlin, have stated their position. It was favourable for the most

part and only partly hostile. So far as I know, no essentially new proposal was put forward.

Further, the Office international des Musées has published repeatedly in its *Informations mensuelles* notes and remarks about numismatic institutions and exhibitions, as for instance of Finnish and Danish medals, or about a very interesting exhibition of means of payment of all kind in Buffalo, &c.

In October 1934 the Commission of the League of Nations and the Spanish Government summoned an international conference on questions concerning museums. Twelve reports dealing with general technical problems of museums were presented and six reports on special collections. My report (no. 17) was about numismatic collections. A French translation has been published in the large *Museography* (2 vols.) of this conference; the original appeared in the *Wiener numismatische Zeitschrift* in 1935. In the ensuing discussion Signor Majuri, Director of the Museo Nazionale in Naples, and Señor Ferrandis of the Instituto de Valencia de Don Juan in Madrid stated their experiences, and written remarks were received from the late M. Babelon, Paris, Dr. Thordeman, Stockholm, and from the Department of Coins of the British Museum.

Finally, Mr. Foundoukidis of the Office international des Musées plans a guide to the collections of coins and medals, for which purpose a committee has been elected.

The activities of the Office international des Musées regarding numismatics are obviously directed principally toward institutions connected with museums, and, first of all, serve artistic purposes, in accordance with the propositions and reports presented.

On account of the Great War the numismatic collections showed gaps that had to be filled; furthermore, the War brought forth new medals and currency and a very extensive circulation of new money of varied kinds. As it was, then, chiefly on account of reduced funds, not possible to purchase these new specimens, exchange between the numismatic institutes proved efficient. These exchanges have been very numerous, especially with modern medals, and the Numismatic Department in Vienna, for instance, has worked with the institutes, collections, and the mints in Munich, Berlin, Paris, London, Utrecht, Kremnitz, Copenhagen, and Budapest. Private medallists of The Hague, Milan, and Munich have also collaborated.

This exchange of objects of art, that gave many artists and amateurs valuable suggestions which they might otherwise have missed, led consequently to the organization of exchange exhibitions. We have been working with a circulating exhibition of German and Austrian

medals that went to many cities, then with a Hungarian-Austrian, a Hungarian-Finnish, and Austrian exchange exhibition, each of which was successful. We are especially indebted to Sir Robert Johnson and furthermore to the management of the mint in Paris for their very generous and skilful activity in the line of exhibition and exchange. In other branches of numismatics also international exchange has been established, for instance with duplicates out of coin-finds of the Middle Ages, but it takes place chiefly with the varied coins and credit-paper of the War and post-War time, a period which is very important from the point of view of the history of finance. These very illuminating specimens have been supplied very generously by the Government of Soviet Russia to several countries, and we are very grateful to the British Government for the interesting currency from the colonies put at our disposal. Only in this way was it possible to get an idea of the creation of money during these periods of crises, and to be able to deal with it on a scientific basis.

Out of a *practical* need, the International Commission of Criminal Police for Suppression of Counterfeits and Forgeries, with its head office in Vienna, was founded and has been supplied by all countries with specimens of money in the shape of coins or paper-money actually in circulation. This represents a very valuable and interesting collection of money in circulation to-day, and a survey has just been published under the auspices of the International Police Quarters.

Otherwise work has been undertaken on a purely *scientific* basis. A few years ago the Rockefeller Foundation began in England with the preliminary work, on a very vast scheme, on the international history of prices, and established sub-committees in every important country. The interest in the evolution of prices and in the exact calculation of the value of the different species of coins has been a very natural one at all times, and has always been discussed with lively interest. We have in mind the very numerous publications of the so-called Cambists, for the end of medieval and for modern times, and the monumental work of M. Avenol; but even one of the founders of scientific numismatics, the Abbé Eckhel of Vienna, has devoted an entire chapter in his famous *Doctrina numorum veterum* to the calculation of the price of the Bucephalus, for instance. The remarkable work by John Arbuthnot, *Tables of Ancient Coins, &c.*, London, 1754, deals in not less than twenty-two chapters with the conversion of the Roman prices into English currency. The critical observations on this exhaustive work, by Languith, object that Arbuthnot was not quite clear about the weights and that his values were wrong.

This is the ever-present danger that still exists for our modern history of prices. It was therefore not only necessary to study the commodity-side of these tables, but it is obviously also the task of the numismatists to inquire about the monetary standards. In Austria this task has been assigned to my collaborator, Herr Dr. Geyer, and I have published the first results with tables and explanations in 1933 in our *Numismatische Zeitschrift* under the title 'Zur österreichischen Münzpolitik 1524–1790'. By this, much new light has been thrown upon the problems of the value of money and monetary standards. Furthermore, so far as money is concerned, I have found a treatise by Herr Elsass about price-standards in Munich 1500–1700, which appeared in *Economic History* in February 1935, to be of some importance for numismatics, whereas the great work by Earl J. Hamilton, *American Treasure and the Price Revolution in Spain 1501–1650*, cannot satisfy the numismatist entirely, in spite of all the admiration he may feel for the author.

Following the scientific principles of numismatics, the general interest has again turned toward the scientific organizations of historians. Whilst the International Congress of Historians in Oslo 1928 still paid no attention to the numismatists, several papers dealing with numismatics were read in Warsaw in 1933. At the Congress in Warsaw the respective committees of Sweden and Austria presented a proposition to the organizing committee of the International Organization of Historians suggesting the formation of a special commission for numismatics. In March 1934 this commission was constituted in Paris under the presidency of M. Tourneur. It had its second meeting in April 1936, in Bucarest, under M. Moisil, and on the 29th of June its third meeting here. This commission comprises so far members of twenty-three countries. First of all, the commission, being a section of the Congress of Historians in Zürich in 1938 presided over by Professor Temperley, claims the right to specify for itself the papers which are to be read. Therefore the proper work of the commission and suggestions from abroad will be considered. The Comité Français has made the following suggestions: Financement des guerres and the preparation of tables of the coins in circulation in medieval and modern times, whether coin or money of account.

This last-mentioned subject appears as one of the principal tasks of numismatics. Similarly, it will prove necessary to work with one of the other commissions of the organization of historians, the commission for Banque et Change, which has already published in one volume the bibliography of the history of banking and monographs on the origin of banking in several countries. The great activity of

the banks of issue, the connexion that existed between the first bills of the Bank of England and the English reform of coinage under Sir Isaac Newton in the last years of the seventeenth century, show the importance of numismatics for the history of banking in earlier periods.

Above all, it is the object of the commission to develop its own activity. For this purpose it has been made a rule to eliminate from the outset all proposals that could not possibly be realized, as there are no funds at all available up to now. So far we have obtained through the generosity of M. Lhéritier the bulletin of the organization of historians for our publications. Therefore the commission has the intention, with regard to the previous discussions, to deal at first with problems of numismatic terminology, and then, as the principal question, with coin-finds. It has been found a necessity in order to secure hoards for scientific research-work to know the laws and regulations existing in all countries and their practical applications. Sir George Francis Hill's latest book constitutes an excellent foundation for further investigations.

It has to be emphasized that for scientific purposes the task of securing finds regularly for study has to be considered beforehand, so that they may be properly identified and described before their eventual acquisition by a museum. Besides, the commission of the League of Nations for Intellectual Co-operation has begun in similar fashion to get acquainted with the regulations for the preservation of historical monuments. The task of summing up the regulations concerning treasure-trove in the different countries will not be a difficult one. Another point suggests that a comprehensive and regular survey of the hoards be made, if possible with statistical tables and maps. Furthermore, the composition of the hoards should be investigated and the number of foreign coins ascertained.

In this case international collaboration seems very urgent, so much the more as the country of origin of the coins does not always coincide with their circulation. In each territory the reciprocal ratio of local and foreign money is subject to great fluctuations, the study of which gives interesting clues for the local history of money at home or abroad.

As an example, the study of Austrian coinage that we have the honour to present shows that finds are more frequent from periods which coincide with war-time. While under normal circumstances the entire coining of money could take place at home, foreign coins constituted three-quarters of the coin-hoards from the Thirty Years War and the wars against the Turks. The predominance of certain coin-sorts

in those hoards accounts for the ever-progressing decrease of the purchasing power of the money.

On the other hand, hoards from south-eastern Europe prove that large quantities of Austrian coins streamed into the south-eastern countries, but, as a rule, less valuable coins than those in circulation in the country of origin. This cannot be explained satisfactorily and exclusively by commercial reasons, but presents a phenomenon that may be called in German *Kulturgefälle*. As a very striking example of the incongruency of the country of origin of a coin with its circulation, we may mention the thaler of Maria Theresia, and, less well known, the circulation of the Austrian 20-kreutzer coin on the Île de la Réunion in 1859.

I have to apologize for having used to such a large extent my own experience as secretary of the international commission and as Keeper of the Viennese numismatic department for the incomplete survey of the above-mentioned efforts at international co-operation. Nevertheless, they are evidence of the urgent need for mutual assistance and a comprehensive and efficient organization.

'MONETA' IN OLD ENGLISH, 'MOT(PENINGR)' IN OLD NORWEGIAN COIN-INSCRIPTIONS

HANS HOLST

THE English numismatist Charles Francis Keary in 1893[1] drew attention to the fact that the form MONETA on earlier Anglo-Saxon coins is the usual one after the name of the moneyer, in fact that it later became almost the stereotyped form right up to the date when mint-names were placed on coins. He expresses doubt whether the word at that date was understood by the coin-engravers as an abbreviation of MONETARIVS. He admits, it is true, that it was originally an abbreviation for this word, but he puts forward the hypothesis that MONETA subsequently came to stand in popular repute as an independent noun with the meaning of 'coin', 'money'. A legend such as TORHTVLF MONETA could, according to Keary, only signify *Torhtulf's coin*. The grammatical error in it troubled neither the engravers nor the majority of the people who used the coins as a means of payment. If only they saw the word MONETA and the name of some moneyer before it, it would be enough for them to interpret the legend in the way exemplified. A confirmation of this theory is found by Keary in the tendency which moneyers later have to put their names in the genitive in coin-legends. Of such genitive forms he cites several under the Anglo-Saxon kings (in Wessex) in the tenth century: Eadmund, Eadred, and Eadwig.

If we now follow Keary's reasoning—that MONETA is an independent substantive in the coin-inscriptions in question—it is worth while investigating the question whether this word has always and by all been interpreted simply as 'coin', 'money'. There are certain facts which indicate that the moneyers may have intended to express also something else, something which was equally relevant, by the word MONETA, namely, 'die', 'stamp', 'impress'.

This meaning the word has, as is well known, in several Latin writings, not only of antiquity, but also of the Middle Ages. The following examples may be cited:

(1) 'communi feriat carmen triviale *moneta*.'[2]
(2) 'nomina . . . Latina *moneta* percussa sint.'[3]

[1] In his introduction to *A Catalogue of English Coins in the British Museum, Anglo-Saxon Series*, vol. ii, London, 1893, p. cv f.

[2] Juvenalis, vii. 55.

[3] *Apulei Apologia*, 38.

Georges[1] quotes, besides, the following example from Martial:[2]

> 'aut libram petit illa Cosmiani
> aut binos quater a nova *moneta*.'

Here, however, *nova moneta* may also signify coins of a new issue, the result of a new coinage based on new regulations as to fineness, &c.

(3) 'Verbis utendum est, ut nummis publica *moneta* signatis.'[3]
(4) 'Denarius bonus puro ex aere, recto pondere, *moneta*que legitima debet constare.'[4]

Du Cange,[4] who has still further examples, quotes also a sentence in which, according to him, *moneta* has the meaning 'instrumenta monetalia seu quibus cuditur et fabricatur moneta',[4] i.e. minting implements: 'Majori filio meo Johanni lego . . . totum mansum majorem in quo maneo ad naves, cum sua *moneta* et cum suis omnibus botiguis et operatoriis.'

If Du Cange is right, *moneta* has here a wider significance than 'die'; but the dies are nevertheless the decisive factors in coining, i.e. the chief of the instruments (including besides the dies, anvil, hammer, &c.) for which we have the term *moneta*.

If we therefore without definitely accepting Keary's suggestion adopt it as a working hypothesis[5] in so far as it applies to these Anglo-Saxon coins of the tenth century, it is possible in further support of my interpretation of MONETA in the inscriptions of these coins to adduce interesting parallels from the numismatic history of Norway round about 1066 and the immediately following years.

Norwegian coins exist of this period having legends which contain a word which must signify 'die', 'stamp', 'impression', '(coin) type', viz. Old Norse *mót*. Of such legends with Anglo-Saxon–Latin letters we have IEOFRICR MOT, ΓEFRIC MOT, and ASKELS MO (or MOT). Although these coin-legends are later than the above-mentioned Anglo-Saxon, the Norsemen may have regarded them as identical. I shall here only recall the part which Anglo-Saxon moneyers played in Norway (as elsewhere also in Scandinavia) in the eleventh century. It is possible, in fact, to characterize the first Norwegian coinage as Anglo-Saxon as regards types and inscriptions. This prevents us from *a priori* regarding the first Norse coin-legends as being entirely original in their con-

[1] *Ausf. lateinisch-deutsches Handwörterbuch*, s.v. [2] xii. 55. 8.
[3] Du Cange, *Glossarium*, ed. Didot, iv. 483, s.v. 'Moneta'. [4] Ibid.
[5] The theory seems to have several weaknesses. I am not acquainted, however, with the attitude of later English numismatists to it; likewise I lack relevant literature, if such exists.

tent. It is reasonable to assume that there is a connexion between the latter and contemporary or earlier Anglo-Saxon coin-inscriptions. MO and MOT might in the minds of Norsemen who were able to read easily suggest the idea 'die', 'stamp', 'impression', '(coin) type'. These letters graphically can stand not only for the Old Norse word *mót*, which has these significations, but also for *moneta*, which in the minds of those familiar with Latin was bound to call forth the same idea.

It may be appropriate here to quote a couple of examples from Old Norse literature, where *mót* = '(coin) type', 'impression', 'stamp', 'die':

(1) 'þá spurði hann, hvers *mót* eða mark á var þeim peningi.'[1]
(2) 'þat var *mót* á silfri, er gékk enn fyrsta vetr ríkis Decii konongs.'[2]

Cf. also *mótpenningr* = 'stamped coin', i.e. coin, struck by *mót* (die).[3]

Further, it should be noted that whereas the word *mot* no longer occurs in modern literary Norwegian, Danish, and Swedish, it is still extant in modern Icelandic and in Norwegian and Swedish dialects; it has also been long existent in the Danish language.[4]

That these letters stand for the Old Norse *mót* is also confirmed, however, by the contemporary Norwegian coins with Norse Runic inscriptions. These latter make it also possible to explain the nominative IEOFRICR, which does not need to be regarded as a mistake for the genitive.

Thus we have a Runic coin with the inscription ᚴᛅᚠᚱᛁᚴᚱ ᛅ ᛘᛅᛏ ᚦᛁᛏᛅ, i.e. *Lofríkr á mót þetta* = 'Lofrik owns this die'. Other Runic coins have the legends ᚴᚢᚾᛅᚱ ᛅ ᛘᛅᛏ ᚦᛁᛅ (or ᚦᛁᛅᚴ, ᚦᛁᛅᛅ), i.e. *Gunnarr á mót þessi* = 'Gunnar owns these dies' (plural), and ᚴᚢᚾᛅᚱ ᛅ ᛘᛅᛏ ᚦᛁᛏᛅ, i.e. *Gunnarr á mót þetta* = 'Gunnar owns this die' (singular). When therefore one of Gunnar's coins bears the inscription *Gunnarr mót þessi* we understand without difficulty that the moneyer has omitted the verb *á*, 'owns'. In the same way we can now explain the inscription IEOFRICR MOT.

The moneyer Gunnar also struck a coin with the Runic inscription *Gunnars mót þessi* = 'These (are) Gunnar's dies'. With this coin-inscription may be compared those mentioned above, written in

[1] Johan Fritzner, *Ordbog over det gamle norske Sprog*, Christiania, 1886–96, s.v.
[2] Ibid.
[3] S. Egilsson, *Lexicon poeticum antiquae linguae septentrionalis*, 2nd ed., F. Jónsson, Copenhagen, 1931, p. 413, s.v.
[4] O. Kalkar, *Ordbog til det ældre danske Sprog* (1300–1700), Copenhagen, 1881–1918, s.v. 'mod'.

Anglo-Saxon letters: ᒥEFRIC ∽ MOT and ASKELS MOT. It is not inconceivable that there is a connexion between these Norse and the Anglo-Saxon genitive forms of the names of moneyers.

Among the Norwegian Runic coins from about 1066 there is also one bearing the inscription ᛅᛋᚴ ᛏᛚᛚ ᛅ ᛒᛏᚾᛏᚴ ᚦᛏᚾ, i.e. *Áskell á pening pen(na)* = 'Askell owns this die'. Although Old Norse *peningr* is equivalent to *moneta* in the meaning of 'money', 'coin', we must assume that the moneyer Askell understood this word[1] as a synonym of *mót*. He most certainly, like his colleagues Lofrik and Gunnar, wished by the legend to express the fact that he was owner of the die, that the impression was his work.

The same was no doubt also the case with the moneyer Thord, who worked for the Danish king Svend Estridsson. When Thord on the Runic coins which he struck puts the inscription *þórðr á mi[k]* = 'Thord owns me', he no doubt intended thereby to emphasize his ownership of the die in the same way as the contemporary Norwegian craftsmen Lofrik, Gunnar, and Askell.

Where, however, there is added to one of the said words which may signify 'die' (viz. *peningr*) a name other than that of the moneyer, the position may be different. If this name is that of the mint, as in the German coin-inscription IELITHIS PENINC[2], the latter word signifies quite certainly the product, i.e. 'coin', 'money'.

The same seems to be the case with the word ME in the well-known European coin-inscription consisting of a moneyer's name and ME FECIT. Such an inscription is also represented on Norwegian coins from about 1066. On one of these a moneyer named Ulfcel has written *Ulfcel me fecit*. And it is reasonable to suppose that he also thought more of the final result of his work, the finished coin, than of the two dies he used. About each of these dies he might, however, of course, also have used *me fecit*, if he had cut them.

However that may be, and whether we accept Keary's hypothesis or not, the result will be the same as far as Norway is concerned: words and conceptions which in Latin are represented by *moneta* are found on Norwegian coins about 1066 both in the meaning of 'die', 'impression', and of 'the finished coin'. We are also entitled to see a connexion between Norwegian and English coin-inscriptions, a connexion which is perfectly intelligible when we remember how much the Norsemen in the Viking period imbibed from England of cultural values and impulses. Whether the connexion in a single

[1] Cf. English *coin* with French *coin* and Italian *conio*.

[2] H. Dannenberg, *Die deutschen Münzen der sächsischen und fränkischen Kaiserzeit*, vol. ii, Berlin, 1894, p. 634 f.

point is such as indicated above is a question which may and should be debated. In any case, it is certain that it was from England that the art of cutting dies for producing impressions, coin-types (*moneta-mót*), and striking coins, pennies (*moneta-peningr*) came to Norway.

Since the above was written and sent to the press my friend Georg Galster, Curator of the Royal Collection of Coins and Medals, Copenhagen, has put into my hands the British *Numismatic Journal*, xxi, drawing my attention to William C. Wells's paper on 'The Northampton and Southampton Mints'. In this the author discusses (pp. 23–8) various interpretations which English numismatists have given to MONETA and its abbreviations on Anglo-Saxon coins. Mr. W. J. Andrew's criticism (pp. 26 ff.) contains much that is sound and correct. But as in my paper I am, as will be seen, fairly independent of Keary's hypothesis, as far as the main point is concerned, *the interpretation of* MOT *on old Norwegian coins*, I have allowed my paper to stand in its original form. In that way I think the problem will remain best fitted for future discussions.

COIN-FINDS IN SWEDEN: LEGISLATION AND ORGANIZATION

B. THORDEMAN

TOWARDS the end of May 1630 King Gustavus Adolphus II left Stockholm to proceed to the great war in Germany from which he was never to return. Some few days earlier, on the 20th of May, amid the bustle of preparation for his journey, he issued an ordinance of a kind which one would not have imagined he had time to think of at this, Sweden's hour of destiny, but which bore every trace of his personal solicitude. By this ordinance he instituted the office of the Royal Custodian of Antiquities, the office on which the care of Swedish relics of antiquity still devolves. Even from the very first there was embodied as a special point in the instructions for this official that he was to seek for and collect all kinds of ancient coins, and six days later the new Custodian of Antiquities was commissioned by the king to take charge of a collection of coins and medals which were among his personal possessions. This royal gift may be said to constitute the nucleus of our Royal Coin Cabinet.

Even by the medieval Swedish legislation two-thirds of treasure-trove was already considered the property of the Crown, but this enactment was only a fiscal measure. In 1684, half a century after the institution of the office of Custodian of Antiquities, the legislation concerning relics of antiquity was supplemented by an ordinance of fundamental and practical importance, by which certain finds of antiquities, including coins, became in their entirety the property of the Crown, and were to be offered to the king for purchase, to serve as material for archaeological research. Ever since, that is for over 250 years, it has been compulsory for finds of coins in Sweden to be offered for purchase, and they have been collected in the Royal Coin Cabinet, which is under the care and administration of the Royal Academy of History and Antiquities. According to the law of 1734 relating to antiquities, which in this particular is still in force, finds of gold and silver are to be purchased by the state at the full intrinsic value plus one-eighth, and finds of copper at the antiquarian value.

Thanks to this old legislation for the benefit of archaeology, considerable numbers of coin-finds have been collected in the Royal Coin Cabinet, and several such finds, often of great scientific value, are usually made every year. Of course, it probably happens that a

part of what is found is concealed or sold in the open market, but I have the impression that nowadays this is exceptional, and that as a rule people loyally observe the strict letter of the law.

This is certainly also due to some extent to the fact that the supervision is not ineffective. This is formally exercised by the police authorities, but in reality more has probably been effected by those responsible for the preservation of antiquities. In most parishes the Custodian of Antiquities has a representative with a certain amount of authority, and it is of still greater significance that in nearly every province there are museums which are under the inspection of the Custodian of Antiquities and under the management of trained superintendents. At times the latter request that the find may be retained in the museum of the province, which request is usually granted—unless the find is particularly interesting—either in the form of a transfer or a deposit from the state collection, but in any case the find first passes through the Royal Coin Cabinet, where it is examined and catalogued.

The father of numismatics in Sweden, Elias Brenner, had an ever-open eye for coin-finds as scientific material, and in the second edition, published posthumously in 1731, of his work *Thesaurus nummorum sueo-gothicorum* a list is given of all then known coin-finds. This was, however, probably the work of the editor of this edition, Nils Keder, who dealt with coin-finds in a number of papers of great value. By the way, Keder also made a catalogue of Brenner's valuable coin-collection, which was bought by an Englishman, Walter Grainger.

Since then the study of coin-finds in Sweden has been carried on with varying intensity and success. The most important international contributions have been made by Bror Emil Hildebrand, who devoted himself particularly to the numerous Anglo-Saxon coins represented in the Swedish finds—the first edition of his great work on them was published in 1846—and by C. J. Tornberg, the orientalist, who, on Hildebrand's initiative, made a study of finds of Muhammadan coins in a work published in 1848. Hans Hildebrand—a son of Emil—made a close study of the Swedish medieval coins, and with the help of the finds was able to establish a chronological system for them, published in 1887, the main features of which still stand.

During the last half-century Swedish coin-hoards have been dealt with in a number of monographs. I will only recall Bror Schnittger's comprehensive study of the great find of the Viking time at Sojdeby, and Ture Arne's paper, abounding in fundamental observations, on the two finds of solidi at Etelhem and Akebäck, comprising in all ninety-one specimens. The finds of Roman coins,

not only in Sweden but also in the whole of free Germany, have been dealt with in a lengthy treatise by Sture Bolin, lecturer in the University of Lund. Bolin bases his comprehensive presentation on detailed statistics of finds, and above all advances the thesis that series of finds indicate periods of war, a thesis which he has based on a study of more recent coin-finds from the province of Scania. This thesis has, however, met with a certain amount of opposition from the archaeologists specializing in prehistoric times, especially Arne, and Birger Nerman, who has made a careful survey of the rich finds of Roman coins from the island of Gotland in collaboration with Oscar Almgren. For my part I have found support for Bolin's theory, so far as the Middle Ages are concerned, in an investigation based on some finds of coins in a soldiers' grave which I excavated in Gotland, containing the bodies of the victims of a massacre on the 27th of July 1361. The finds which I was lucky enough to make thus occupy a somewhat unique position among numismatic material, in that they are exactly datable to the day, and they throw fresh light on the dating of the contemporary Swedish coin-types.

I have given a survey, as complete as possible, of the Swedish medieval finds in a work shortly to appear, in which the Danish and Norwegian medieval coins are dealt with by Georg Galster and Hans Holst. On the basis of statistics of finds I advance there a revision of the older datings of these coins. For the purpose of dating I have also employed a new spectrographical method of analysis, invented by Gillis Olson, a curator of the National Museum of Antiquities in Stockholm. This method permits of an analysis of the metal content even of unique coins, without causing the least injury to them, and also of a large number of coins at the same time, whereby casual fluctuations in the content are eliminated. The analysis is made by means of a photographic spectrogram of an electric spark, and the spectrogram can then be used both for quantitative and for qualitative analysis. This method opens up new and extremely significant possibilities for numismatic research.

In Sweden the difficulty of obtaining a survey of the coin-finds has constituted a great obstacle to numismatic research on modern lines. Excellent lists of finds have been published earlier, both at the beginning and in the middle of the nineteenth century, but the finds made during the last fifty years which have not been published have been relatively inaccessible to investigators who have been unable personally to pursue their studies at the Royal Coin Cabinet. At the beginning of last year, however, it became possible to appoint a special official there whose sole task was to make a complete list of

all the known finds of coins in Sweden, and the final result of his work is now available in the form of a slip catalogue in triplicate, comprising forty cases with about 300 catalogue slips in each case. These three copies are arranged according to different systems: the first an inventory in numerical order, the second topographically, according to province and parish, and the third chronologically, contemporary groups of finds being arranged together. This catalogue will later be published, together with maps of the finds. In the following communication, however, Mr. Rasmusson will give some indications of the result of this work.

I fully realize that this is only an introduction to the extensive work on these finds which we owe to the international numismatic world. Our treasures from Viking times, in particular, afford important contributions to the knowledge of the history of the Anglo-Saxon, Muhammadan, and German coins of the eleventh century. In this connexion, however, too much must not be expected of us. Our finds of coins are large, but Sweden is a small country with but few professional, trained numismatists. Further, the National Museum of Antiquities and the Royal Coin Cabinet associated with it are on the eve of removal into a new general museum, which is now under construction. Owing to the responsibilities connected with this change it will not be possible during the next few years for scientific work to be carried on so methodically as it might otherwise have been. But I hope that the work which has now been started will be slowly but surely completed.

FOREIGN COINS IN SWEDISH COIN-FINDS

N. L. RASMUSSON

ONE of the main objects of international co-operation in numismatics has always been, and will surely always be, mutual assistance between scholars and countries in placing at one another's disposal the available numismatic material. One of the first conditions for this being done properly is a knowledge of how the main streams of currency used to flow. It should be remembered that the accumulating activity of the collector has contributed largely to the present distribution of ancient coins, but the coins which come from finds to the various central museums have a greater interest for the student, as they tell us something of the history of coins as currency and not as objects for the collector's activity.

As Dr. Thordeman has pointed out in his article read to this Congress, legislation in Sweden has enabled the central Museum of the country, Kungl. Myntkabinettet, to accumulate finds for some 250 years. On the basis of a preliminary survey recently made, and the literature, I shall endeavour to outline briefly what foreign coins have been found in Swedish soil in the course of centuries.

A German writer remarked some fifty years ago that it was impossible to prove the truth of any story of Greek coins having been found in the Baltic area. This is also true of Sweden. There is no authentic find of Greek coins in Sweden. In this connexion I should like to say that it is desirable to collect material for a map which would show the northern limits of the established finds of Greek coins.

There are a few stories of finds of Celtic coins. These also come into the category of finds of which the details must be examined with a critical eye, but nevertheless there are some reasons for greater confidence in such finds. The most important of these was one said to have been found some time before 1700, and for a century a learned controversy went on about its proper explanation, starting with the first expositor's explanation of the coin as struck for Odin, the great god of the Teutonic peoples and, according to tradition, the ancestor of the earliest Swedish royal family.

Apart from Celtic coins, the import of foreign coins into Sweden only began at the end of the second century A.D. The hoards of Roman coins containing denarii from Nero onwards, which are found mainly on Gotland but also in other parts of Sweden, contain as their latest pieces coins of Marcus Aurelius, Commodus, Septimius

Severus, and in one case Severus Alexander. Denarii occur also mixed with gold coins of later date, and this shows that they remained in currency, or after being dug up were put into circulation again and buried once more. Of denarii a few have been found singly of dates later than Septimius Severus, all in Gotland. The number of denarii found is altogether about 5,500.

The second great period of importation is during the fifth and sixth centuries. Here we have gold coins exclusively, solidi struck after A.D. 395; but before this there had been a slight import of coins to Swedish territory, for aurei of the first and third centuries and solidi of the fourth before 395 have been found, some ten pieces in all. There are also stories of finds of copper coins, but this group of finds more than others runs the danger of being mixed with specimens from collections, and the stories we have of such finds are not beyond all doubt. Only one is worthy of special note, a find of five bronze coins struck in Alexandria, the latest one being of the beginning of the fourth century.

As I have already said, the most valuable importations into Sweden of ancient coins took place during the period of the Völkerwanderungen and consists of Roman and Eastern Roman solidi struck after A.D. 395, in all about 500.

The bulk of these come from Öland and Gotland, but finds are known from Upland and Småland and isolated finds of single solidi have also been made in northern Sweden (Medelpad). The latest dates for the known hoards are for Öland 457–91, for the large Gotland finds 491–565. But isolated coins down to Justinian I have been found in Öland. This emperor is the latest to be represented in the Swedish finds. The last few years have made a new addition to the Gotland finds in the shape of pieces (4 in all) struck for the Merovingians, Burgundians, and Ostrogoths.

As already mentioned, Justinian I is the last emperor whose coins found their way to Sweden. There follows a period, called after a find-spot rich in material the Wendel period, which shows no coin-finds. Although not falling within the geographical limits I have set myself for this survey, for I am only dealing with finds from within the boundaries of old Sweden and do not include the provinces incorporated with Sweden in the seventeenth century, I must mention a find recently reported from Skåne which, if correctly recorded, is the first of its kind in the north. It is a Visigothic coin struck by the last Visigothic king Wittiza from a mint Bracara, not previously known of his reign. It would be interesting to know the northern limit of the finds of Visigothic coins and the limits within which other

coins struck in Europe in the seventh and eighth centuries were disseminated. With this knowledge some light would be thrown on this find, and the lack of finds in the north put in its proper context.

After the period without finds there begins during the Viking period a time which is the richest in Swedish history in imported foreign coins. On account of the defective publication and identification of this vast material it is difficult to give an answer even to apparently simple questions regarding chronological and geographical distribution. In the first place we have the import of Muhammadan dirhems—only a few dinars have been found—and from the middle of the ninth to the end of the tenth century these completely dominate the finds. The oldest hoards come from Gotland, which also produces the largest finds of the whole period. The number of Muhammadan coins from Swedish finds was recently estimated at about 36,000, a figure which I can no more guarantee than the figures given below for other kinds of coins. The apparent uniformity of the composition of the Muhammadan hoards gives place on closer examination to a great variety of different dynasties, rulers, towns, and dates. In the oldest hoards Ommayad and Abbasid dirhems predominate, mixed with coins of, among others, dynasties in Spain and North Africa, and coins of the predecessors of the Arab Empire in the east, the Sassanians. At the beginning of the tenth century a new admixture occurs when coins of Samanid rulers of Transoxiana and Khorasan soon gain a predominance in the hoards which they retain till the end of the tenth century. Then a brief interruption in the imports occurs. The latest import of Muhammadan coins contains coins of the Marwanids, Buwayhids, and Okailids, and the latest dates are of 1010–15. The cessation of the import of coins from the East is connected with the almost complete cessation of the issue of silver there. Towards the end of the tenth century Muhammadan coins were almost the only ones brought to Sweden: the exceptions are a few English stycas of the middle of the ninth century found in graves and probably not regarded as coins. More extensive, but not large, was the import of Carolingian deniers, which can be to some extent dated from a find with Muhammadan coins coming down to about 850; there are also a number of English coins of the ninth and early tenth century from graves. These must have been imported before the middle of the tenth century. Finds with a latest date of about 950–70 for Muhammadan coins are the earliest which contain western coins in large numbers. These are German and Anglo-Saxon coins (the latter of Edgar and Ethelred) and early and late Scandinavian imitations of coins of Charlemagne. At the same time the first Byzantine coins

appear. During the eleventh century the finds consist mainly of Anglo-Saxon and German coins (according to the above-quoted estimate about 20,000 and 35,000 respectively), the Anglo-Saxon coins reaching their peak under Ethelred and then gradually diminishing in numbers, the German in large numbers throughout the century. Unfortunately the present state of our knowledge does not enable us to give, even in their main outlines, the details of the varied masses of German coins which reflect the territorial distribution of the issues. Coins from the Rhinelands, Saxony, Franconia, and Bavaria predominate. The Byzantine were never large in numbers (about 400 in all). The last representatives of this group were struck about 1070. The occurrence of a few Byzantine copper coins of the ninth century does not thrust the limit appreciably backwards for the earliest imports dated above to the end of the tenth century. Of greater importance is the Danish admixture in our finds, while the Norwegian is quite insignificant, and of native coins only those of Olaf Skötkonung are at all prominent. In conclusion it may be mentioned that coins from Russia, Poland, Hungary, Italy, and Bohemia also occur; in the finds of these groups the Bohemian are probably the largest. On account of our insufficient knowledge of the bulk of the German coins found, it is impossible to give a date for the latest of them. Of English, the coins of the two Williams are not uncommon and in one case a find includes Henry I. The latest German coins are probably of the same date.

After this we have a definite break in the import of coins into Sweden. Probably the great bulk of coins in use were still foreign —the minting of coins in Sweden had stopped before the middle of the preceding century. An increase in this bulk can only be noticed when about the middle of the twelfth century the native mints reopened. The foreign coins noticeable in the finds of the end of the twelfth and beginning of the thirteenth century are mainly English coins of Henry II and his successors and German coins, two-sided pieces (of the archbishops of Cologne and Frederick Barbarossa, with small Dutch deniers) as well as bracteates, the last in strikingly high numbers in the western parts of the kingdom, probably imported from Norwegian territory where finds of this class are known. A few Norwegian coins of the twelfth century have also been found in Sweden though in no case is the quantity large. Danish coins of the beginning of the thirteenth century were also imported to the western parts of the country. It is remarkable to note that on sacrificial sites in Lappland traces of the import of foreign coins of this period have been found which seem to suggest continuity with the

eleventh century. The connexion is maintained by Norwegian coins of the middle of the twelfth century. Here also Norwegian coins of the end of the eleventh century have been found which do not seem to have been included in Swedish finds. The middle and end of the thirteenth century are characterized by a remarkable predominance of purely native coinage. It is significant that Henry III's long cross type (1248–79) does not appear to be found in Sweden.

A group which stands out from all others so far mentioned is formed by Spanish Arab gold coins of the twelfth century, which have, however, all been made into ornaments.

When the import of coins into Sweden again begins, its characteristic feature is the sterling of the three Edwards. The new large French coin, the gros tournois, is found to a much smaller extent. The admixture of bracteates from northern Germany at the end of the thirteenth century and of Norwegian coins is not inconsiderable. It is, however, not till the Witten issues in northern Germany had begun about 1340 that we find really large imports again. The Witten coins became the most important foreign currency in Sweden until far into the fifteenth century. Alongside of them we find, in addition to quarter-Witten, north German bracteates, especially of Mecklenburg (bull's heads), which remained in circulation even after the Witten coins had disappeared, as well as Danish issues, so long as Danish coins lasted, that is down to about 1375, and also coins and bracteates from the lands of the Teutonic Order south and east of the Baltic.

The gold coinage which began again in Europe at the end of the thirteenth century leaves traces also in the Swedish finds as early as the beginning of the fourteenth century with isolated florins from Florence and Vienne. The German gold gulden gradually become predominant—especially during the fifteenth century—notably those of Lübeck and western and central Germany. Öland, particularly, seems to have had a great influx of them and from here we have the only Swedish hoard of them, which was buried about 1490.

Of larger gold coins we now have nobles from England (Edward III and IV), but the beautiful French gold pieces of the time do not seem to be found. Of ducats, on the other hand, we have a few specimens, mainly from the end of the period. In Sweden gold coins at this time attained such importance that the coinage was adapted to them and reckonings were kept in florins. The silver coins imported were, however, of even greater importance. During the second third of the fifteenth century a change took place and the Danish Witten coins took the place of the Hanseatic as the most prominent foreign coins in Sweden. The danger of this inundation

of bad coinage from adjoining lands was noted by the Swedish authorities, but prohibition is of little avail in such cases. Besides Danish coins we have coins from Gotland, which now belonged to Denmark, and these were certainly no better. This import reaches its height and its end with the *klippingar*, the square, clipped coins of little value struck by Christian II for his conquest of Sweden.

At the beginning of the modern period the use of foreign coins was continued and extended. Western Europe predominates in the documentary as well as the material sources. It is the great international currencies of the time that we find in both: rose-nobles, angels, sovereigns (England), ducats (Holland and Hungary), and Portuguese gold.

Among the silver coins we find Danish pieces of all kinds throughout the sixteenth century, but confined mainly to the frontier provinces of Småland and Västergötland.

As regards silver coins Germany now predominates, particularly with thalers, especially from the north-western parts of the empire (including the Netherlands). When we come to smaller denominations, however, north Germany alone is represented.

The picture changes during the seventeenth century. The large west European denominations now disappear, and of gold coins the ducat is almost the only one found: that of the Low Countries is the commonest; the German is of little importance.

Many Danish coins were still brought into the frontier provinces (Småland and Västergötland). But the fact that we have a considerable Danish currency circulating in Sweden towards the end of the seventeenth century is due to changed conditions. Sweden had conquered large territories in the south and west, and in the east had taken Gotland from Denmark, and it is only natural that Danish coins should have remained in currency here and that their number should have been increased by importation.

The great international silver coin, the thaler, still predominates among the silver coins imported. The smaller coins are few in number and still come from north Germany. One cannot help noticing how Västergötland predominates as regards German coins. Next comes Skåne, which had other traditions in common with Denmark and strong German connexions. In Skåne the small German denominations had long been popular. In some parts of central and northern Sweden it seems as if foreign coins had already ceased to exist. During the eighteenth century the import of foreign coins practically ceases. There seems to be only one foreign coin of

this period which is regularly found in Swedish soil, and that is the Dutch ducat.

Our own coinage finally attained supremacy in this period and still holds it.

Only the period from 1875 to the War formed an exception, to this extent, that by the terms of the Scandinavian Monetary Convention Danish and Norwegian coins were legal tender.

As the eastern frontier territory, Finland in medieval and modern times had a currency of another character from the motherland. Here we find in the middle ages and at the beginning of the modern period for the most part coins from the eastern Baltic of the Teutonic Order and Russian dengas. In more recent times also, the great admixture of Russian silver and copper coins of various denominations has been noticeable.

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[1] Abbreviated to KVHAA.

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LE PRÉTENDU MONNAYAGE D'ÉDOUARD III EN BRABANT

VICTOR TOURNEUR

(*Planche XXI*)

ÉDOUARD III a-t-il monnayé en Brabant pendant son séjour à Anvers qui dura de juillet 1338 à janvier 1340? Telle est la question dont je voudrais rechercher la solution.

Les numismates modernes ont attribué à ce prince plusieurs monnaies: Alphonse de Witte lui a donné l'écu d'or à la chaise au nom de l'empereur Louis de Bavière, qu'il aurait frappé à Anvers comme vicaire de l'Empire.[1]

Bien antérieurement J. F. Willems lui a attribué deux demi-gros, l'un de Bruxelles, l'autre d'Anvers.[2]

Depuis C. P. Serrure a vu dans ces espèces une monnaie commune au roi d'Angleterre et à Jean III de Brabant ou au roi d'Angleterre et à l'empereur Louis de Bavière.[3] Van der Chijs[4] a repris ces deux hypothèses sans prendre parti, tandis que A. de Witte s'est prononcé pour une monnaie commune à Édouard III et à Jean III de Brabant.[5]

L'attribution à Édouard III d'un monnayage anversois d'or et d'argent repose sur des passages des chroniques de Froissart.

Racontant la réunion de Herck-la-Ville où Édouard III convoqua ses partisans après son entrevue avec l'Empereur à Coblence, Froissart écrit: 'Là endroit, par devant tout le peuple qui la était et par devant tous les seigneurs, furent lues les lettres de l'Empereur, par lesquelles il constituait le roi Édouard d'Angleterre son vicaire et son lieutenant pour lui, et lui donnait pouvoir de faire droit et loi à chacun, au nom de lui, et de faire monnoie d'or et d'argent aussi au nom de lui.'[6]

[1] A. de Witte, *Histoire monétaire des . . . ducs de Brabant*, Anvers, i, 1894, p. 128.

[2] J. F. Willems, 'Van den derden Eduward, Koning van Engeland', *Belgisch Museum*, iv, 1840, p. 300.

[3] C. P. Serrure, *Notice sur le cabinet monétaire de S. A. le Prince de Ligne*, Gand, 1847, p. 98.

[4] P. O. Van der Chijs, *De munten der voormaligen hertogdommen van Brabant en Limburg*, Haarlem, 1851, p. 82.

[5] A. de Witte, op. cit., p. 129.

[6] *Chroniques de Sire J. Froissart*, ed. J. A. C. Buchon, Paris, 1837, livre I, part 1, lxxvi, p. 69.

Puis plus loin: 'Le roi Édouard, vicaire de l'Empire, s'en revint à Louvain, de-lez madame la reine sa femme. . . . Si tinrent à Louvaing leur tinel moult honorablement tout cet hiver, et fit faire monnoie d'or et d'argent à Anvers à grand foison.'[1]

Voilà qui semble formel: Édouard III, d'après Froissart, a reçu de l'Empereur l'autorisation de faire monnaie d'or et d'argent et il a fait largement usage de cette autorisation à Anvers. Une seule expression reste obscure, *au nom de lui*, ce qui peut signifier qu'Édouard III fabriqua sa monnaie à la place de l'Empereur, ou qu'il dut y placer le nom de l'Empereur au lieu du sien.

Il est impossible de vérifier l'exactitude de l'assertion de Froissart: pour autant que je sache, le texte du diplôme impérial constituant Édouard III vicaire de l'Empire n'est pas retrouvé. Il convient d'ailleurs de se méfier de ce récit qui est plein d'erreurs, même en ce qui concerne les faits les plus généraux: ainsi, c'est à Anvers et non à Louvain que Édouard III et sa femme passèrent l'hiver de 1338–9.

Or, nous sommes précisément au moment où l'on commence à frapper de l'or dans l'Empire.

D'après Luschin von Ebengreuth,[2] les premières monnaies d'or d'Empire datent de 1325, et l'on considérait alors qu'une autorisation spéciale était nécessaire pour frapper l'or. La plus ancienne qui soit connue a précisément été donnée par Louis de Bavière en 1339 au duc Renault III de Gueldre qui fut l'un des alliés d'Édouard III. Le duc reçoit la permission de battre de la monnaie d'or *juxta valorem monetae archiepiscopi Coloniensis, ducis Brabantiae et comitum Hannoniae atque Hollandiae*, ce qui suppose au moins l'existence de quatre concessions antérieures dont l'une pour le duc de Brabant.[3] Ce dernier n'avait certainement pas attendu l'autorisation impériale pour battre de la monnaie d'or, car le florin de Florence apparaît en Brabant entre 1294 et 1312.[4] Mais il se pourrait que l'Empereur ait autorisé le duc à battre des monnaies à son nom.

C'est là précisément ce que rapporte Edmond de Dynter qui, à la demande de Philippe le Bon, écrivit une chronique des ducs de Brabant et, de par ses fonctions de secrétaire du duc, avait à sa disposition tous les documents des archives ducales.

De Dynter nous apprend qu'en 1338 l'Empereur Louis de Bavière

[1] Ibid., lxxvii, p. 70.

[2] Luschin von Ebengreuth, *Allgemeine Münzkunde und Geldgeschichte des Mittelalters*, 2e Aufl., München, 1926, pp. 209–10.

[3] Van der Chijs, *De munten der voormaligen graven en hertogen van Gelderland*, Haarlem, 1852, p. 267.

[4] Victor Tourneur, 'Le Florin au type florentin dans les principautés belges', *Revue belge de numismatique*, lxxviii, 1925, p. 132.

autorisa Jean III a faire frapper à Anvers une monnaie d'or au nom de l'empereur et aux armes de l'empire. Le duc mit cet octroi à profit: il confia à Faucon 'de Pistoria' la frappe d'écus d'or appelés en flamand *Faucons-schilde* ou *Antwerpsche schilde* et qui valaient autant que les écus du roi de France moins un gros tournois.[1] La charte impériale à laquelle a puisé de Dynter ne paraît plus être conservée aujourd'hui. Mais tout porte à croire que de Dynter a rapporté les faits avec exactitude, car il est bien informé; nous pouvons vérifier une partie de ses dires. C'est en effet le maître monnayeur italien Faucon de Lampage de Pistoia qui a frappé cette pièce. Faucon de Lampage après avoir travaillé pour le comte de Flandre aux monnaies d'Ypres et de Gand cessa son activité à ce dernier atelier le 16 octobre 1338.[2] Il passa alors certainement directement au service du duc de Brabant. Les documents relatifs au monnayage de Jean III sont à peu près tous perdus, mais nous savons par une quittance donnée à Faucon de Lampage par Jean III le 26 mai 1344, que celui-là était au service du prince avant 1343.[3]

Or, M. Em. Lombaerts,[4] puis M. l'abbé Prims ont démontré qu'il est hors de doute que les écus d'or de Louis de Bavière ont été frappés par Faucon de Lampage: ils ont mis la main sur une lettre scabinale d'Anvers de 1352 dans laquelle il est question de 'huit vieux écus impériaux, comme en a frappé autrefois maître Faucon à Anvers dans la monnaie de notre seigneur le duc, marqués de l'aigle'.[5]

Le récit de de Dynter est donc confirmé par un document officiel à peu près contemporain, et par conséquent il y a lieu de refuser les écus d'or au nom de Louis de Bavière à Édouard III pour les restituer à Jean III de Brabant. Le duc, d'ailleurs, n'a pas tardé à frapper la même pièce à son propre nom et à ses propres armes. Voici la repro-

[1] 'Item supradictus Ludovicus imperator indulsit, auctoritate caesarea, Johanni hujus nominis duci tercio Brabancie, ut sub nomine et titulo ejusdem imperatoris atque armorum imperii insigniis, in oppido Antwerpiensi posset facere cudi monetam auream, cujus siquidem indulti vigore ipse dux Johannes fecit cudi in dicto oppido Antwerpiensi per Falconem de Pistorio scuta aurea que in vulgari theutonico faucons-schilde sive Antwerpsche schilde nuncupantur et valent tantum quantum antiqua scuta cugni regis Francie minus uno grosso Turonensi.' *Chronica nobilissimorum ducum Lotharingiae et Brabantiae* . . . auctore magistro Edmundi De Dynter, ed. P.F.X. De Ram, ii, Bruxellis, Hayez, 1854, p. 621.

[2] V. Gaillard, *Recherches sur les monnaies des comtes de Flandre*, Gand, 1852, Pièces justificatives, xxi, p. 59.

[3] J. Vannérus, 'Le maître monnayeur Falcon de Lampage à l'atelier d'Anvers', *Revue belge de Numismatique*, lxxi, 1919, p. 336.

[4] *Rev. belge de Num.* lv, 1899, pp. 477–9; cf. p. 504.

[5] 'Acht oude Keizersschilden, gelijk dat meester Faucoen eerstwerf te Antwerpen in onzen Heerens' hertogen munte te slaen placht, geteekend met den arend.' Prims, *Geschiedenis van Antwerpen*, iv. 1, Anvers, 1933, p. 198.

duction et la description de l'écu à la chaise frappé par Jean III au nom de l'Empereur Louis de Bavière:

Écu à la chaise d'Anvers (Faucons-schilde) ✠LVDOVICVS : DEI × GRA × ROMANORVM × IMP'. Dans un double encadrement de huit arcs de cercle, l'Empereur assis sur un trône gothique portant sur la tête une courone ouverte, tenant l'épée haute de la main droite, et reposant la gauche sur l'écu impérial.

R. Entre deux cercles de grènetis, ✠XR'C : VINCIT : XR'C : REGNAT : XR'C : IMPERAT. Croix ajourée et ornée dans un quadrilobe.

Or. Poids: 4 gr. 53. (Pl. XXI, n° 1 *av.*)

Même pièce, mais l'Empereur porte la couronne fermée.

Or. Poids: 4 gr. 46. (Pl. XXI, n° 2 et 3 *av.*)

La variété dans laquelle la légende du droit se terminerait par IMATOR (De Witte I, p. 129, 5) n'existe pas. La pièce a été mal lue.

Passons maintenant au groupe de pièces d'argent qui sont considérées comme monnaies de convention et qui auraient été frappées en commun par Édouard III et Jean III, ou Édouard III et Louis de Bavière. Ce sont des demi-gros de type anglais sortis des ateliers d'Anvers et de Bruxelles, et un demi (?)-penny de l'atelier d'Anvers.

J. F. Willems, le premier, a songé à cette attribution; il la proposa pour les demi-gros parce que ces pièces sont de type anglais, raisonnement bien dangereux vu ce que l'on sait des imitations monétaires.[1]

C. P. Serrure fut hypnotisé par l'inscription du demi-gros de l'atelier d'Anvers: *Moneta nostra antwerpiensis*. 'Les mots *moneta nostra*, écrit-il, indiquent positivement que c'est une monnaie de convention.' Il ne parle plus de la pièce de l'atelier de Bruxelles. A. de Witte non plus, mais il écrit qu'il semble que l'on peut considérer comme une monnaie commune au roi d'Angleterre et au duc de Brabant les demi-gros à tête d'Anvers, de type anglais. Étudions donc les monnaies elles-mêmes; en voici la reproduction et la description:

Demi-gros d'Anvers. ✠MONETA × NRA × ANTWERP'. Dans un entourage formé de huit arcs de cercle ornés de trèfles à leurs intersections, buste de face couronné.

R. ✠BNDICTV : SIT : NOMEN : DNI : NRI. Croix longue et pattée coupant la légende SIG|NVM | CRV|CIS. Dans les angles de la croix quatre groupes de trois globules. (Pl. XXI, n° 4.)

Variété avec ✠MONETA × NRA × ANTWERPIEN, et des globules aux intersections des arcs de cercle (Pl. XXI, n° 5.)

Argent. Poids: 2 gr. 18; 1 gr. 88; Cabinet des Médailles, 1, 195 1,885 (deux ex.).

[1] *Belgisch Museum*, iv, 1840, p. 300.

Demi(?)-penny d'Anvers. ✠MONET . . . . ANTWER. Buste royal couronné de face.

R. Croix longue pattée, coupant la légende SIG|NVM | CRV|CI . Dans les cantons de la croix, quatre groupes de trois globules.

Poids : 0,805. (Pl. XXI, n° 6.)

Demi-gros de Bruxelles. MONETA × BRVXELLENSIS. Dans un entourage de huit arcs de cercle terminés par des trèfles à leurs jointures. Tête couronnée de face.

R. ✠BNDICTV : SIT : NOMEN : DNI : NRI. Croix longue et pattée coupant la légende intérieure SIG|NVM | CRV|CIS. Dans les angles de la croix quatre groupes de trois globules.

Poids : 1 gr. 86 et 1 gr. 695. (Pl. XXI, n° 7 et 8.)

Toutes ces monnaies présentent des inscriptions qui s'avèrent bien modestes: aucune ne nous donne le nom du prince qui les a frappées. On dirait qu'elles veulent passer inaperçues.

Or, est-ce ainsi que procèdent les princes qui frappent une monnaie de convention? Bien au contraire, ils s'empressent d'y indiquer leurs noms. Ainsi firent Jean l'Aveugle, Adolphe de la Marck et Guillaume I de Namur sur la monnaie frappée sans doute par bravade dans l'atelier de Namur et qui copie exactement le demi-gros d'Anvers qui nous occupe. Ils y mettent leurs trois noms, et reproduisent exactement le *Moneta nostra*, mais changent *Antwerpiensis* en *Namurcensis*[1] (Pl. XXI, n° 9).

D'autre part on ne voit pas comment Édouard III, tout en possession du titre de vicaire de l'Empire qu'il fût, aurait pu battre monnaie à Anvers. Ce titre était parfaitement inopérant; Pauli l'a fait remarquer depuis longtemps.[2]

Rappelons brièvement les faits: à son retour de Coblence où il avait été proclamé par l'Empereur vicaire de l'Empire pour les territoires situés sur la rive gauche du Rhin, Édouard III convoqua à Herck-la-Ville une assemblée de tous les princes de cette contrée. Ce fut pour lui un échec complet. Non seulement les partisans de la France tels que Jean l'Aveugle, Adolphe de la Marck, Guillaume de

[1] Ed. Bernays et J. Vannérus, *Histoire numismatique du comté puis duché de Luxembourg*, Bruxelles, 1910, p. 172.

[2] 'Kaum wollte er im October von seiner neuen Würde Gebrauch machen, indem er als Kaiserlicher Vicar einen Tag alle seinen Befehlen unterstehenden Fürsten nach Herk in Brabant ausschrieb, als sich die ganze Hohlheit des Bodens offenbarte, auf welchem man gemeinschaftlich zu handeln gedacht. Nicht nur eine Reihe entschieden französisch gesinnter Fürsten wie der Bischof von Lüttich verweigerten es, an jenem Kreistage zu erscheinen, sondern auch andere, welche bis dahin als Freunde gegolten, wie der Herzog von Brabant, stellten sich nicht ein.' R. Pauli, 'Kaiser Ludwig IV. und König Eduard III.', *Bilder aus Alt-England*, Gotha, 1860, p. 138. Sur le rôle d'Édouard III en Brabant, voir H. Pirenne, *Histoire de Belgique*, t. ii, Bruxelles, 1903, pp. 98–9.

Namur ne s'y rendirent point, mais le duc de Brabant lui-même s'abstint d'y paraître, et Édouard III semble dès lors avoir si bien laissé tomber son titre de vicaire de l'Empire que l'acte par lequel celui-ci lui fut conféré paraît avoir disparu sans laisser aucune trace.

Dès lors, étant donné l'attitude du duc de Brabant à son égard, comment le roi d'Angleterre aurait-il obtenu de pouvoir frapper une monnaie en commun avec celui-ci dans l'atelier d'Anvers? D'autre part, contrairement à ce qu'a cru C. P. Serrure, l'expression *Moneta nostra Antwerpiensis* n'implique pas que les pièces aient été frappées en commun.

Jean III dans tous ses actes en latin emploie toujours le pluriel au lieu du singulier quand il parle de lui-même: il dit *nos* et non *ego*, *noster* et non *meus*.

Par conséquent *moneta nostra* c'est notre monnaie avec le pluriel de majesté, dans le sens de *ma* monnaie; *nostra* insiste sur ce fait que c'est bien la monnaie du duc de Brabant quoi qu'elle soit de type anglais.

Jean III a tout simplement fait fabriquer à Anvers et à Bruxelles des monnaies de type anglais parce que l'arrivée de nombreux Anglais dans la suite du roi devait donner cours en Brabant aux monnaies anglaises; le duc de Brabant à cette occasion réalisa une bonne petite opération financière, et il le fit avec discrétion, puisque son nom n'apparaît pas sur les espèces. Il y mit aussi peu de scrupules car il y a eu dans cette émission des pièces d'aloi et de poids bien bas.

Quant à Édouard III, si quoi qu'en ait dit Froissart il ne frappa ni monnaie d'or, ni monnaie d'argent à Anvers, du moins répandit-il dans cette ville quantité de monnaies de toute provenance par les largesses auxquelles il s'y livra, et c'est sans doute la raison pour laquelle Froissart a cru qu'il y avait fabriqué les espèces si libéralement distribuées.

Il faut ajouter que cependant ce monnayage soulève un problème que je suis incapable de résoudre.

Si on en croit les manuels de H. A. Grueber et G. C. Brooke le demi-gros n'aurait pas été frappé par Édouard III avant 1351 (au poids de 34 grains 3, soit 2 gr. 25).

Qu'il s'agisse de demi-gros, les poids que nous avons indiqués ne laissent aucun doute à ce sujet. Ces demi-gros ont été frappés incontestablement, comme on l'a vu, pendant les années 1338–40.

Or, on ne connaît pas de demi-gros anglais antérieurs à 1351.

Les nôtres ne sont d'ailleurs pas identiques à ceux de 1351. Au lieu de la légende *Posui Deum adiutorem meum*, qui se rencontre à

partir de 1351, ils ont encore celle des gros tournois *Benedictum sit nomen Domini nostri*, et *Signum crucis*.

Mais l'effigie est anglaise ; le poids est anglais ; la pièce de base que nous connaissons ne peut être que le demi-penny bien que le poids en soit un peu fort. Je dois d'ailleurs ajouter que nous ne connaissons de cette dernière pièce qu'un seul exemplaire.

Que conclure de tout cela ?

Le duc de Brabant a évidemment émis ces demi-gros dans un but de lucre. Il est donc impossible de songer qu'il ait pu fabriquer une monnaie d'un type anglais inexistant, car alors ce numéraire n'aurait pas été accepté par les Anglais et l'opération aurait échoué.

C'est pourquoi nous nous demandons s'il n'a pas existé avant 1351 un demi-gros anglais qui aurait porté la légende du gros tournois *Benedictum sit nomen Domini nostri*, avant que celle-ci n'ait été changée en *Posui Deum adiutorem nostrum* comme ce fut le cas à partir de 1351.

Tel est le problème pour la solution duquel nous faisons appel à la science des numismates anglais.

THE REQUIREMENTS OF A GOOD CATALOGUE

COLONEL AXEL WAHLSTEDT

SINCE the Renaissance, when the collecting of coins began to be a fashionable hobby among the cultured section of the more prosperous classes, the knowledge of coins and medals has proved to possess quite a special power to fascinate its pursuers. If I were to attempt to explain this incontestable fact, I should do so as follows: no objects of study, perhaps, with the exception of old manuscripts and books, have in such a high degree as coins the power of giving the human imagination material to work upon; and, more than most other objects of collection, coins are able to afford to their possessors that satisfaction which a collector feels when he has advanced so far in the art of dealing with the objects of his interest that he has learned to comprehend all that they have to tell those who have the capacity to understand their language. For every coin, even one without legend, is able to speak in its own way.

Modern numismatists, however, do not restrict themselves to coins in the strict sense only. The same engravers who made the coin dies have frequently also worked as medallists. As the medals frequently are signed by their artists, a comparison between the several styles that are met with on the coins and on the medals has often led to important conclusions as to the die-engravers who worked at the different coining establishments. As armorial insignia are often met with on coins as well as on medals the numismatist must also take an interest in heraldry and in sigillography. Concerning this latter, it is to be remembered that the same engravers as have worked in the mints may also have produced dies for seals, which consequently may often have a close connexion with the coins and medals.

Those who have had an opportunity to follow the development of numismatics during recent decades must have remarked that since about twenty years ago a very essential difference has gradually appeared in the manner of considering the objects of numismatic research, especially coins. Any one who studies an older work on descriptive numismatics will find, as a rule, that the coins are considered as they are placed in the drawers of the cabinets or under the glass of the cases, i.e. merely as museum or collector's objects, whereas later numismatic authors appear to have more and more conscientiously tried to place the coins in their historic and

economic environment and to inquire how the ways and circumstances of the coinage and the conditions of time during which the coins were in circulation have found an expression in their appearance and qualities or are reflected in their legends. The earlier numismatists have written about coins, regarded as dead relics from olden times, without any more important consideration of their intention to serve commerce and cultural development, while the task of modern numismatic research is to bring these same relics to life and, if possible, to make them reply to questions about the times when they were made and other pertinent circumstances and facts. Modern numismatic research thus makes the development of the history of coinage constitute the frame of the coin-description, and within this frame it emphasizes such facts as have importance for this history, while those matters and circumstances that must be considered as accidental may be more or less left aside.

It is, however, not sufficient that a coin-catalogue is chronologically arranged, so that the different coin-types follow each other in the same way and in the same succession. A scientific coin-catalogue must also give an account of the economic conditions that form the background to the activity of the monetary workshops. Thus placed in their natural environment the coins can contribute to make a picture of the pulsating life that they once assisted to maintain.

Above all, it is important that the author of a coin-catalogue should be capable of comprehending all that the coins themselves may have to tell about their origin and all connected with it. By this I mean the various differences as to the styles of portraits, armorial bearings, letters or numerals on the coins, which cannot easily be described in words, but which may be of very great importance, as they can tell us, e.g. that a new die-engraver has begun his activity. A little difference in the legends of the coins, particularly in the abbreviations or punctuation, may sometimes be quite unimportant and depend upon a mere chance, but in another case it may be of considerable numismatic interest. To such circumstances the description has to pay due regard.

A descriptive work on coins ought to include, if possible, the total coinage of a given territory during a given period of time. As a rule it is not suitable to isolate from its connexions a minor part of this coinage for separate description. Also it seems not to be scientifically correct to describe the coins of different metals separately. On the other hand, it generally seems to be convenient to separate the coins that have their origin in different mints.

A good coin-catalogue must be arranged in such a manner that it

gives a good survey of the whole material and at the same time limits this by not proposing any more coin-types than are conditioned by the numismatic development. For the museum authorities it must make it possible to survey the whole collection, to arrange it according to numismatic principles, and to obtain necessary information about existing gaps in the series quickly and easily. For private collectors it must open a way to plan their collecting activity, so that they can avoid the purposeless and extravagant accumulation of dates and other variations of coins of the same type, as for the average collector it ought to be sufficient to own in his collection one specimen of every type. Thus he gains a better survey of his collection, which at the same time acquires a greater value as material for the study of the history of coinage as well as of general cultural or economic development. And, above all, a good coin-catalogue must be able to make the collector feel the genuine delight of collecting, the delight bestowed upon him when he himself has learned to put questions to his coins and to listen to their answers.

MONNAIES MOYENÂGEUSES FRAPPÉES AVEC DES COINS PROVENANT DE DIFFÉRENTS PAYS

Z. ZAKRZEWSKI

ON connaît le fait que les nations commençant à frapper leur propre monnaie imitaient plus ou moins strictement les pièces étrangères qui jusqu'à ce moment-là étaient en cours chez eux. Je cite entre parenthèses comme exemple les monnaies gauloises, dont les motifs sont empruntés soit à des pièces grecques, soit romaines — en plus les premiers deniers de Bohème (Tchécoslovaquie), sur lesquels on aperçoit tantôt l'effigie d'Ethelred II, tantôt la chapelle carolingienne.

Ainsi donc l'imitation comme telle ne saurait nous surprendre et ne nous donnerait pas encore le droit d'en tirer de conséquences sérieuses. Il y a cependant un autre fait qui, quoique très rapproché du premier, mérite toute notre attention.

L'imitation d'un motif, comme je viens de le dire, est une chose courante, mais la situation change et devient compliquée quand on se rend compte que ce n'est pas le motif comme tel, mais bien le *coin original* qu'on a emprunté pour frapper la pièce. Certainement au premier abord on pourrait penser qu'il s'agit d'une exception, dont la raison nous échappe; toutefois si ce fait se répète à plusieurs reprises, il faut alors changer d'avis et admettre qu'on a affaire à une coutume réclamant une interprétation satisfaisante.

Ayant acquis la certitude qu'une monnaie fut frappée à l'aide de deux coins, provenant de deux pays différents, la première question qui s'impose est celle de savoir quelle est, pour ainsi dire, la nationalité de la monnaie, et, ensuite, pourquoi a-t-on employé un procédé si étrange.

Afin de pouvoir répondre à ces questions, passons en revue les monnaies possédant cette marque caractéristique.

Je cite en premier lieu une suite de deniers, appelée à tort le groupe: *Boleslas-Otto-Adelheid*, formant un ensemble qui se compose de six éléments.[1] Les avers des trois premiers deniers sont parfaitement identiques. Ils ont été frappés à l'aide d'un seul coin, représentant la tête d'un guerrier casqué, telle qu'on la voit sur différentes pièces

[1] Z. Zakrzewski, 'O denarach Adelheidowych z imieniem Bolesława', *Wiadomości Numizm. Archeol.*, Kraków, 1904.

d'Ethelred II, mais peu habilement contrefaite. En exergue on lit la légende BOLIZLAVVS. Les revers sont différents et proviennent de trois coins originaux étrangers — deux allemands et un bohémien.

Les avers du quatrième et cinquième denier portent de nouveau les empreintes d'un seul coin et nous y rencontrons le même guerrier anglo-saxon et la même légende qu'auparavant. J'ajoute encore que les deux coins qui ont servi à frapper les avers des cinq deniers furent exécutés par le même médailleur.

Les revers quatre et cinq, bien entendu différents, sont d'origine bohémienne.

Enfin, en réunissant les revers trois et quatre on a frappé le sixième et dernier denier.

Nous avons donc en somme six pièces qui ont été monnayées à l'aide de deux coins incontestablement polonais, de deux allemands et de trois bohémiens. Ils forment, comme nous le voyons, une chaine, prouvant que, malgré toute l'invraisemblance d'une telle affirmation, ils proviennent quand même d'un seul atelier.

Le second groupe, publié récemment par le chanoine E. Majkowski,[1] se compose de trois deniers. Tous les avers proviennent d'un coin anglo-saxon d'Ethelred II. En parlant de ce coin je suis obligé d'ajouter qu'il ne s'agit pas ici d'une pièce originale, plutôt d'une copie très habilement exécutée — le chanoine E. Majkowski l'a suffisamment prouvé. A mon avis elle n'a pu être faite en Pologne, c'est donc pour cette raison que je la range parmi les coins étrangers. Sur le revers du premier denier on aperçoit l'avers bien connu d'une monnaie polonaise de Boleslas Chrobry, appartenant à la série 'Dux Inclitus'. Les deux autres revers, représentant la chapelle carolingienne, sont frappés par deux différents coins bavarois.

Il nous reste enfin un denier à étudier qui ne peut être adjoint à aucun des deux groupes, mais qui quand même joue un rôle important dans nos recherches.

Nous connaissons depuis longtemps une monnaie de Boleslas Chrobry avec un oiseau à l'avers et une crois cantonnée de quatre demi-cercles au revers. Elle porte des deux côtés en exergue la légende: PRINCES POLONIE. Or le cabinet de monnaie et de médailles du Muzeum Wielkopolskie à Poznań est en possession d'un denier jusqu'à présent non publié, dont l'avers est frappé avec le coin à l'oiseau et le revers avec un coin inconnu du prince Vladivoi. On y voit une croix cantonnée de deux cercles contreposés, d'une

[1] E. Majkowski, 'Coins struck by Boleslav the Mighty, duke of Poland (992–1025) with bust and name of Aethelred II of England', *Numismatic Chronicle*, 5th Ser., vol. xiv (1935), pp. 168 s.

petite croix et de trois globules formant un triangle. En exergue: VLADVO . . . V+.

C'est précisement ce denier qui nous permet d'établir certains faits très concrets.

Rappelons-nous que Vladivoi, probablement un parent des Přemislides, séjournait en Pologne lorsqu'il fut désigné par les Tchèques successeur du roi Boleslas II, chassé du pays en l'an 1002. On peut s'imaginer que le premier soin du nouveau souverain devait être d'avoir à sa disposition une caisse bien emplie et que, pour atteindre ce but le plus tôt possible, il s'est servi d'un coin déjà existant — d'un coin qui sans doute lui fut offert par son protecteur polonais dans une intention précise. La légende PRINCES POLONIE en dit assez.

Ces quelques faits nous permettent aisément d'établir non seulement l'auteur du denier, mais aussi le lieu et la date de son émission. Notons donc: Vladivoi, Prague et la fin de l'année 1002. Élucidons à présent l'origine des autres monnaies en commençant par le groupe 'Ethelred'.

En principe les deniers qui lui appartiennent ont pu être monnayés soit en Angleterre, soit en Bavière, ou enfin en Pologne.

En réalité il n'y a que ce dernier pays qui entre en considération. En effet on ne saurait comprendre pourquoi le roi anglo-saxon aurait-il emprunté de coins étrangers, lui qui avait à sa disposition des ateliers bien organisés et des médailleurs fort adroits. On peut également éliminer la Bavière pour les mêmes raisons et cela d'autant plus que la question du prestige s'oppose à une autre interprétation. Il est vraiment difficile à supposer que les seigneurs bavarois aient voulu remplacer leurs noms sur leurs monnaies par ceux de souverains avec lesquels ils n'avaient aucune relation. Il ne reste donc que la Pologne comme pays originaire du groupe en question. Du reste je ne fais que partager l'opinion du chanoine E. Majkowski, émise dans son traité.[1]

Le problème du groupe 'Boleslas-Otto-Adelheid' est plus difficile à résoudre, étant donné que les deux pays entrant sérieusement en concours, la Pologne et la Bohème, ont à peu près les mêmes droits de revendication.

Plaidant pour la Pologne, je le fais, guidé par la situation toute exceptionnelle dans laquelle se trouvait en ce temps ce pays au point de vue monétaire. Pour me faire comprendre il est nécessaire que j'en parle en quelques mots.

Au cours d'une séance du Congrès International de Numismatique qui siégeait en 1910 à Bruxelles, j'ai eu l'occasion d'attirer l'attention

[1] E. Majkowski, *Numismatic Chronicle*, ibid.

des auditeurs sur l'aspect bizarre des fouilles polonaises datant approximativement du temps entre 900–1050 de notre ère.[1] On y voit des lingots d'argent, entiers ou morcelés, des pièces d'orfèvrerie, plus ou moins endommagées, enfin des monnaies étrangères, entières ou coupées en petits morceaux. Cette forme extérieure des trouvailles ne change pas, même alors quand apparaissent les premiers deniers polonais, mêlés en petite quantité avec les pièces étrangères. Cette agglomération hétérogène de métal précieux nous démontre que les transactions commerciales devaient s'effectuer à l'aide de la balance, ou autrement dit qu'une monnaie, fut-elle indigène ou non, valait autant que n'importe quel morceau d'argent du même poids. Évidemment dans ces conditions-là le monnayage ne pouvait être une source de revenu ni pour l'état, ni pour tout autre. Il s'ensuit aussi que le choix des coins n'avait pas une telle importance qu'ailleurs.

En raison de ces faits, je me suis décidé d'adjuger les deniers du groupe 'Boleslas-Otto-Adelheid' plutôt à Boleslas Chrobry qu'à son contemporain du même nom régnant en Bohème. Quant à la date de leur émission, les trouvailles nous apprennent qu'elle ne dépasse pas l'an 1000.

Une question très intéressante est encore à résoudre.

Du moment que le monnayage ne rapportait aucun bénéfice, on se demande, non sans raison, quel fut le motif qui détermina Boleslas Chrobry de frapper des deniers. Ne pouvant, hélas, entrer dans les détails, je suis obligé de présenter ici seulement le résultat de mes recherches.

J'ai démontré ailleurs[2] que Boleslas Chrobry, dit le Grand, ne frappait que de temps en temps des monnaies et ceci dans la seule intention de faire valoir son indépendance, sa souveraineté. Des victoires remportées sur l'ennemi, d'importants événements historiques lui en donnaient l'occasion. Il s'agissait donc uniquement d'une démonstration politique, où la question économique n'entrait pas en cause.

Je veux bien avouer que les deniers dont nous venons de nous occuper ne correspondent pas entièrement à cet ordre d'idée. Souvenons-nous toutefois que l'usage étrange de frapper des monnaies adultérines ne fut pratiqué qu'au début du règne de ce grand roi qui, plus tard, sans s'occuper de l'effet que son geste produirait

[1] S. de Zakrzewski, 'L'Usage d'entailler et de mâcher les monnaies au moyen âge en Pologne', *Bulletin du Congrès International de Numismatique*, Bruxelles, 1910.

[2] Z. Zakrzewski, 'Mennictwo polskie za Bolesława Chrobrego', *Pamiętnik drugiego Zjazdu numizmatyków i medalierów polskich*; Poznań, 1930 (*Bulletin du Congrès de numismates et de médailleurs polonais à Poznań*).

sur l'Empire, monnayait des pièces avec la légende REX BOLIZLAVS.

Pour donner à nos recherches une forme plus précise, je les résume en ces termes:

1. On connaît deux groupes de monnaies adultérines moyenâgeuses et un denier du même genre, dont la frappe démontre l'emploi de coins provenant de différents pays.

2. Les deniers appartenant au premier groupe (*Boleslas-Otto-Adelheid*) furent frappés par Boleslas Chrobry, roi de Pologne, avant l'an 1000. On peut admettre que ce sont les premières monnaies de ce souverain.

3. Les deniers appartenant au deuxième groupe (*Ethelred*) furent frappés par le même roi, mais un peu plus tard.

4. Le denier adultérin, se rattachant au type PRINCES POLONIE, fut frappé à Prague par le prince Vladivoi sous les auspices de Boleslas Chrobry.

SECTION IV

BRITISH AND COLONIAL

BRITISH TIN COINAGE OF THE IRON AGE

DEREK ALLEN

THE Ancient British coinage made of an alloy of tin and copper[1] (Evans, Plate H) has never been accurately dated. Evans, who described the coins in detail, was non-committal on the subject of their date, though he inclined to regard them as late and debased rather than as primitive and early.[2] The late Dr. Brooke did not

FIG. 1.

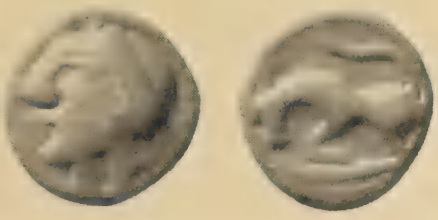


FIG. 2.

FIG. 3.

write of them, and the general impression remains amongst archaeologists that they come at the end and not at the beginning of the Ancient British Series.[3] There are reasons, however, to doubt this view. The coins, which are cast instead of being struck, bear on the obverse the last traces of a human profile, and on the reverse a few lines suggestive of a bull. Evans pointed out that the type is derived ultimately from the second-century bronze coinage of Massalia (Fig. 1) with the head of Apollo on the obverse and the figure of a bull charging on the reverse. This coin was extensively copied in central Gaul with various degrees of barbarism, and it was on these Gallic versions (Figs. 2–3, attributed to the Sequani) that

[1] One part of tin to three of copper; see *Num. Chron.* 1917, p. 316.

[2] Evans, *Ancient British Coinage*, pp. 123–6; Supplement, pp. 484–6.

[3] e.g. Bulleid and Gray, *Glastonbury Lake Village*, p. 30; Curwen, *Sussex Archaeological Collections*, lxviii, p. 6.

the British tin coins were modelled.[1] The Gallic coins appear to have been current during the first quarter or so of the first century B.C.[2] If the British tin coins are late, then they were made after Britain had had for more than a century a coinage of her own; in such circumstances it would be most improbable that the coins should be modelled on a foreign prototype.

In an analogous series of debased coins, the cast coins from the Hengistbury and South Hants finds, the coins were, as one would

FIG. 4.

FIG. 5.

FIG. 6.

expect, imitated from a regular British coin. We can trace the various stages by which they grew to differ from their prototypes. In this case there is no doubt whatever that the coins belong to the end of the Belgic period and overlap with the early years of the Roman occupation. In the case of the tin coins, however, this evidence is completely lacking. They are imitated from a coin which is almost never found in Britain, and cannot have circulated here at the end of the Belgic period in competition with the established British currencies. There is therefore a strong *a priori* reason for thinking that the coins are early; this view is supported by all the evidence I have been able to collect.

A distribution map will be found on p. 354. For the purposes of the map the coins have been divided into two classes. The first and commoner class (Fig. 4 from the Reculvers; Figs. 5–6 from Brentford) shows on the obverse a distinct attempt to portray the human face,

[1] Blanchet, *Traité des Mon. Gauloises*, p. 251.

[2] Changarnier, *Ann. Soc. Franç. Num. et Arch.* 1887, p. 536; Forrer, *Keltische Numismatik*, pp. 114–17.

and on the reverse generally the intention of drawing an animal (Evans, H 1–7). The coins measure on the average 0·7 of an inch across. The head is turned either to right or left indifferently. Coins of this class are depicted on the map by a circle. On coins of the second class (Fig. 7 from Gt. Chesterford; Fig. 8 from Bury St. Edmunds) the face is no longer recognizable as such, and is reduced to a circle described about a pellet. The bull on the reverse has become little more than an eccentric rectangle (Evans, H 8). The coins measure approximately 0·5 of an inch across. Coins of this class are depicted

Fig. 7.

Fig. 8.

on the map by a square. Since the technique of manufacture was no more than to scratch the design upon a wooden mould,[1] scarcely two coins are ever identical, but the distinction between the two classes holds throughout. A hoard as opposed to isolated finds is shown by a double circle or square.[2]

In addition to the find-spots shown on the map, one or more of these coins have been found in France at Mont César (Oise).[3]

The coins are distributed all over the inhabited areas of south-east Britain from Suffolk to Somerset and Dorset. They appear in greatest numbers along the banks of the Thames. The first and commoner class is found over the whole district except in Hertfordshire, Bedfordshire, and Suffolk, where it is replaced by the second class.

A rough distribution map is also given of the find-spots of the Gallic prototypes.[4] These coins are found amongst the tribes of the Carnutes, the Turones, the Bituriges, the Aedui, the Sequani, and to a lesser extent among the Leuci and the Mediomatrici. None of these tribes are Belgic, and the coins are to all intents not found among the Belgae. If the British imitations are to be taken as the

[1] Evans, *Num. Chron.* xvii, p. 18.

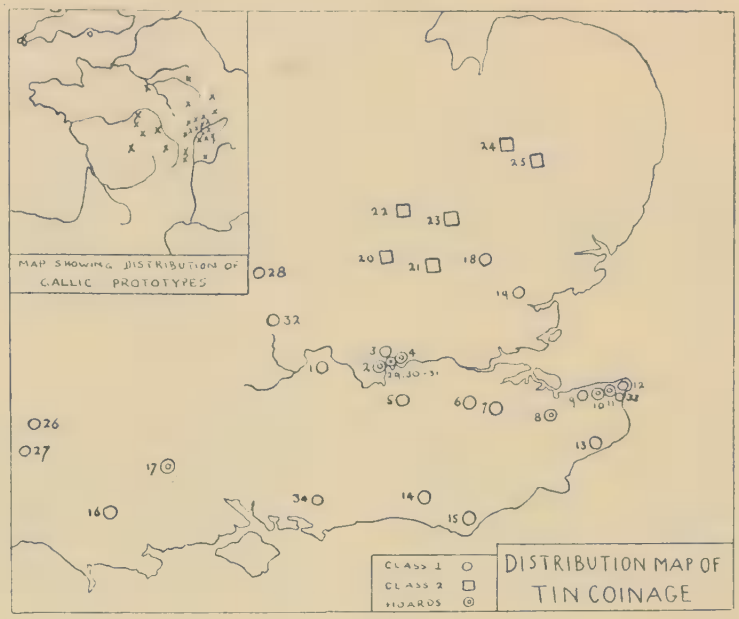
[2] Two other scarce varieties are recorded. One of them (Evans, p. 125) resembles the first of the two classes, but the head on the obverse is replaced by three pellets within a triangle. Specimens of this have been found at Hod Hill in Dorset and Birchington in the Isle of Thanet, from both of which sites normal coins of Class 1 are known. The other variety, represented by a single example in the Hunterian Collection, has a boar on the obverse and a goat on the reverse (Evans, H 9). It is not certain that this coin is British.

[3] Blanchet, p. 251, n. 4.

[4] Based on Blanchet and Forrer, opp. citt.

work of Belgic settlers, like the rest of the coinage in Britain, it is most peculiar that they should copy the coins of a non-Belgic district. The inevitable conclusion is that the origin of the coins must be non-Belgic, and in south-east Britain this can only mean pre-Belgic.

This is strongly supported by a comparison of the distribution map here given with that of the gold coins of the Bellovaci.[1] These



coins are dated by Brooke on reliable grounds to the end of the first quarter of the first century B.C., and were believed by him to have been the first coins current in Britain, and to have found their way here immediately before the first Belgic invasion (*c.* 75 B.C.).[1] Their distribution, in his view, showed the direction and extent of trade with Gaul in the years before the arrival of the Belgae. The distribution of the tin coins will be seen to be extraordinarily similar to that of the coins of the Bellovaci. It is not here maintained that the tin coins formed part of the same coinage as the gold coins of the Bellovaci; but the similarity of distribution lends colour to the suggestion that they too are pre-Belgic, and that they too show the areas of contact with Gaul. If so, they become the earliest coins, of which we know, to have been made in Britain. Except for a slight overlap on the borders, the tin coins are found in precisely those parts of south England where iron currency bars are never found.[2] It is possible to suggest that they are the contemporary counterpart of the currency bars in south-east England.

[1] Brooke, *Num. Chron.* 1933, p. 99.
[2] Bulleid and Gray, p. 399; C. Fox, *Personality of Britain*, p. 80.

The date of the Gallic prototypes is fairly certain. Some of the later coins of this type are inscribed, and the names (e.g. Q. DOCI, and IVL. TOGIRIX) relate them to the silver coinage of the Sequani which is also inscribed. These silver coins can be dated typologically not very long before the invasion of Gaul by Caesar.[1] After the Roman Conquest the bronze coins soon passed out of circulation, though the silver coins survived longer. The prototypes of the tin coinage were current therefore during the first thirty or forty years of the first century B.C. It is, then, during this period (*c.* 100–60 B.C.) that one would expect the British imitations to occur.

The prototypes have been found at only four places in England, Penzance (three specimens), and South Ferriby (one specimen), Weston-under-Penyard in Herefordshire (one specimen), and somewhere in Oxfordshire or Berkshire (one specimen).[2] Two of these places were ports. The discovery of these coins at Penzance is interesting, so close to the presumable source from which the tin for the coins came.[3] It is also worth noting that the only find-spot for coins of the Bellovaci in the west of England is also in the neighbourhood of Penzance, at Carn Brea.

So far the numismatic evidence has been unanimous in suggesting a date for the tin coins early in the first century B.C. Such archaeological evidence as there is tends rather to confirm it than otherwise, though it does not settle the issue. Coins of this type were found by Pitt Rivers at Mt. Caburn near Lewes in four of the Iron Age A pits there excavated.[4] The pottery associated was in no case Belgic, but this site continued to be occupied well into Belgic, and even into Roman times. At Glastonbury a single coin was found in the highest stratified level.[5] Partly on the evidence of this coin it is generally thought that the occupation here continued down to the coming of the Romans. The argument is, however, circular. It neither proves nor disproves the hypothesis. In 1935 some tin coins were excavated at Witham in a stratified level with a non-Belgic pot, which Mr. Hawkes tells me belongs to the middle of the first century B.C.[6]

[1] Forrer, p. 116.

[2] Penzance; coins in the British Museum from the Evans Collection; Evans, Suppl., p. 482. S. Ferriby; coin in Hull Museum. Weston-under-Penyard; Evans, Suppl., p. 482. An example of de la Tour 7405 in the Ashmolean Museum was probably found in Berkshire or Oxfordshire.

[3] For the tin trade at this time see H. O'Neill Hencken, *The Archaeology of Cornwall and the Scilly Isles*, pp. 158 ff.

[4] *Archaeologia*, xlvi, pl. xxv, 61–3; Curwen, *Sussex Archaeological Collections*, lxviii. 6–8; Hawkes and Kendrick, *Archaeology of Britain 1914–31*, p. 202.

[5] Bulleid and Gray, p. 394.

[6] Unpublished; information from Mr. Cotterill

In the same year at Ashtead coins were found associated with similar pottery.[1] All these sites, however, and others, such as Margate, are known to have maintained Iron Age A culture even after the Belgic invasion.[2] Tin coins were amongst those found in excavating the Roman villa at Folkestone, but apparently only in the pre-Roman levels which contained Belgic pottery.[3] Although the coins are distributed widely over the Belgic area, this is the first case yet reported in which they have been found associated with Belgic material. It seems, then, that the use of the coins may have survived the Belgic invasion, but chiefly in districts which were not immediately Belgicized. Hoards mostly occur along the Thames in the parts where Belgic culture spread most rapidly. However, the hoards may imply no more than that the coins now went out of circulation.

The conclusions of this paper, then, may be summarized as follows:

1. The tin coinage is a product of the Iron Age A pre-Belgic peoples in south-east England.
2. It is possibly the contemporary counterpart of the currency bars in the west.
3. Its circulation was coincident and its date probably contemporary with that of the gold coins of the Bellovaci (*c.* 85–75 B.C.).
4. It was the first coinage ever made in Britain.
5. On the arrival of the Belgae it was in general replaced by the gold Belgic coinage, but its use may have survived somewhat longer in those districts where Iron Age A culture survived the Belgic invasion.

These conclusions are of necessity hypothetical. It remains for excavation to prove or disprove this thesis.

A table of find-spots is given on the following page.

[1] Unpublished; information from Mr. G. C. Dunning, to whom my thanks are due for help in preparing this article.

[2] Hawkes and Kendrick, p. 193. See also Hawkes and Dunning, *The Belgae of Gaul and Britain*.

[3] S. E. Winbolt, *Roman Folkestone*, pp. 80, 115–16.

FIND-SPOTS

1. Weycock, Berks.	Evans, p. 125.
2. Brentford.	B.M. A find bought at Sotheby's. *Archaeologia*, lxix, p. 18.
3. Acton.	Gunnersbury Museum.
4. St. James's Park, London.	Evans, p. 125.
5. Ashtead.	Unpublished.
6. Barming.	Note in B.M.
7. Maidstone.	B.M.
8. Lenham Heath.	Evans, p. 125.
9. The Reculvers.	B.M.
10. Birchington.	Evans, p. 125.
11. Birchington.	Evans, Supplement, p. 484.
12. Margate.	Note in B.M.
13. Folkestone.	S. E. Winbolt, *Roman Folkestone*, p. 80.
14. Caburn.	*Archaeologia*, xlvi, Pl. XXV, 61–3; Curwen, *Sussex Arch. Coll.* lxviii. 6.
15. Eastbourne.	Evans, Supplement, p. 485.
16. Hod Hill, Blandford.	Bulleid and Gray, *Glastonbury*, p. 395.
17. Cranborne Chase.	B.M. and note in B.M.
18. Dunmow.	Evans, Supplement, p. 485.
19. Witham.	Unpublished.
20. Baldock.	*J.R.S.* 1933, p. 202.
21. Braughing.	Evans, Supplement, p. 485.
22. Sandy.	Evans, Supplement, p. 485.
23. Great Chesterford.	B.M.
24. Mildenhall.	B.M.
25. Bardwell.	Evans, Supplement, p. 485.
26. Glastonbury.	Bulleid and Gray, *Glastonbury*, p. 394.
27. Ham Hill.	Ditto, p. 395.
28. Woodeaton.	Ditto, p. 396.
29. Hammersmith, Thames.	London Museum.
30. Hammersmith, Thames.	London Museum.
31. Barn Elms, Thames.	*A.J.* lxxxvi. 89. London Museum.
32. Dorchester, Oxon.	Ashmolean Museum.
33. Richborough.	Richborough, 2nd Report, No. 2499.
34. Chichester.	L. A. Lawrence Collection.
35. Silchester.	Reading Museum (not on the map).

THE COINAGE OF THE SECOND BELGIC INVASION

DEREK ALLEN

THE gold coinage grouped round the name of Commius, which Dr. Brooke connected with the second Belgic invasion, is found chiefly in Sussex and the Silchester district. On the other hand, the bead-rim pottery which Mr. Hawkes has shown to be characteristic of the same Belgic invasion is found chiefly west of this district, in Hampshire, Dorsetshire, and Wiltshire. Mr. Allen pointed out that the coinage circulating amongst the bead-rim people cannot have been that of Commius but must have been the base silver coinage which is common throughout the Dorset district. This, he suggested, should rather be regarded as the coinage of the second Belgic invasion.

Mr. Hawkes, replying, described various recent discoveries and reinterpretations which tended to reconcile the apparent conflict between his own and Dr. Brooke's views. These recent developments of the Belgic theory have been published by Mr. Hawkes in the *Proceedings of the Hampshire Field Club and Archaeological Society*, vol. xiii, part 2, pp. 124 ff. and 208 ff., especially pp. 160–4.

ON THE DISTRIBUTION OF SCEATTAS

COL. N. BELAIEW, C.B.

THE word *sceat* first occurs in the laws of Aethelberht, King of Kent (601–4). The silver coins which we know, probably rightly, by that name, appear later in the seventh century. They have been traditionally regarded as English. An analysis, however, of the recorded find-spots shows that 42 per cent. of the known specimens have been found in Frisia, while only 15 per cent. are known to have come from the Frankish coast and even less from England and elsewhere. The Frisian finds consist chiefly of the *Wodin-Monster* type. In the tenth and eleventh centuries this type was still being used at Birka on Lake Mälar in the Baltic; we know from other coins found there that Birka had trade relations with Dorestadt in Frisia. Sceattas have also been found in hoards in the south of France, the most important of which is the Cimiez hoard, buried between 714 and 737. The sceattas found in England occur chiefly in the south-east and up the Thames Valley. Frisia is the only possible meeting-place for these three lines of distribution. It seems, then, that towards the end of the seventh century, when the supply of gold in Europe was running short, the Frisians began to imitate earlier English thrymsa types in silver and to distribute them along their various trade-routes. These coins in turn were copied in England and elsewhere, but Frisia remained the chief centre of distribution. After a short career their place was taken by the penny in England and the denier in France. It was only in the Baltic that they and their imitations continued to circulate.

Colonel Belaiew's paper is published in full in *Seminarium Kondakovianum*, vol. viii, 1936, in Russian, with an English summary.

SOME NEW LIGHT ON THE HEAVY SILVER COINAGE OF HENRY IV, 1399–1412

CHRISTOPHER BLUNT

(*Plate XXII*)

THE coinage of Henry IV can conveniently be divided into two parts—that issued between 1399 and 1412, and that issued between 1412 and 1413. The coins of the first period weigh 120 grains to the noble and 18 grains to the penny, whilst those of the second period weigh 108 grains to the noble and 15 grains to the penny.

The change in the weight of the coins, the first since 1351, was brought about by the usual cause, namely, the falling off of the supply of bullion that was being brought to the mint. The mint accounts, in so far as they exist, show that the gold bullion purchased, which had amounted to 687 pounds in the first three years of Henry IV's reign, in itself a not very substantial amount, had dwindled to 6 pounds by 1407/8. The corresponding figures for silver coined are 1,465 pounds and 144 pounds.

From these figures we should expect the number of heavy coins surviving to be small, for of the small quantities struck it is only to be expected that a large proportion found their way into the melting-pot when the weight was reduced. We may therefore consider ourselves lucky in possessing to-day specimens of all three denominations of gold of both London and Calais, and of all denominations of the silver (except, curiously, the groat) of London, and of the York archiepiscopal penny. In certain cases only one or two specimens have come down to us.

The particular coins which form the subject of this paper are those struck in silver, and it is the pennies of London that claim our attention first. Four specimens are known to me, of which the following are the descriptions:

1. HENRIC × D × G × REX × ANGL × F Bust with long neck as on the latest pennies of Richard II, which are discussed later. Star on king's breast.

   CIVITAS LONDON Extra pellet, outside the three usual pellets, in the TAS and DON quarters.

   Wt. 14·2 gr.

   Walters Sale, 1913, lot 234; Walters Sale, 1932, lot 230.

2. Same obverse die.

Similar reverse, but different die. The extra pellets in this case are doubtful.

Wt. 15·7 gr.

British Museum, *ex* R. Carlyon-Britton Sale, lot 61. (Pl. XXII, 9, *rev.*)[1]

3. hENRIC × D × (.....) GL × F Bust with shorter neck. No star on breast. Two minute pellets over central *fleur* of the crown.

CIVITAS LONDON No extra pellets.

Wt. 17·1 gr.

J. Shirley-Fox Coll., *ex* Rashleigh Sale, lot 699.

4. hENRIC · D × G ⁝ REX ⁝ ANGL × F Star on breast.

CIVITAS LONDON No extra pellets. Trefoil after DON[2]

Walters Sale, 1932, lot 231.

In medieval times, when one king succeeded another peacefully, it was often the case that no change was made in the coinage. The coins of Edward I, II, and III are examples of this, and even more striking are the short-cross coins of Henry II, Richard I, John, and Henry III, which were all of the same type and continued to bear the name of Henry throughout. But when the succession was other than peaceful, the new king seized the earliest opportunity to show those of his people who could read that he was in power by placing his name on the coins. For example, when in 1470 Henry VI regained the throne for the short space of six months, he issued coins with his name in such quantities that to-day, in spite of the shortness of the period, they are by no means scarce.

The succession of Henry IV was far from orthodox, for he deposed his cousin Richard II, who, as was to be expected, continued to have a certain following in the country. It is probable therefore that Henry would have taken steps to stop the issue of coins with the name of Richard at an early opportunity. What we find did in fact occur reflects an interesting light on the working of the mint.

Mr. Walters was the first to notice that on a certain late half-groat of Richard II in his collection the name of the king was hardly legible, although the rest of the legend was clear (Pl. XXII, 3). It appears that a line had been scratched horizontally through the king's name, and, inasmuch as this is in intaglio on the coin and not in relief, one must deduce that it was not done on the die. It might therefore have been done by anybody, but Mr. Walters took the view

[1] The *obv.* figured under this number does not belong to this reverse, but has been repeated in error from no. 11.

[2] I have not been able to examine this coin and have therefore taken my description from the Walters Sale Catalogue. If the trefoil after London is a slipped trefoil, the reverse die would be one made or altered for the light coinage.

that it was done officially. I confess that I have always felt the gravest doubt about this until recently I came across a penny similarly mutilated. This coin I am now publishing by the courtesy of the late Curator of Coins at the Fitzwilliam Museum, which had recently acquired it. The discovery of the penny was in itself additional evidence to support Mr. Walters's view, but further confirmation was obtained from the fact that this penny combined an obverse die of Richard II with a reverse die of Henry IV—the same die that accounted for the penny no. 1 mentioned above.

Although few enough pennies of this period exist, I think there can be little doubt that the true coin of Richard II has no extra pellets on the reverse and that these marks were inserted on the die made for Henry IV's heavy coinage. This being so, the Fitzwilliam coin must of necessity be regarded as a mule between the two coinages, struck of course in the latter period, that is, in Henry IV's reign.

The complete die-sequence is as follows:

1. Obverse die of Richard II, with the name unmutilated.
   Reverse die of Richard II, no extra pellets.
   British Museum. (Pl. XXII, 11.)
2. Obverse. Same die as (1), the name now mutilated in the coin.
   Reverse die of Henry IV. Extra pellet in two quarters.
   Fitzwilliam Museum. (Pl. XXII, 10.)
3. Obverse die of Henry IV. Heavy.
   Reverse. Same die as (2). The piece described under no. 1 on p. 360.

The half-groats show an even more unusual state of affairs. Four specimens with the name of Henry appear to be known:

1. R. C. Lockett Coll., *ex* Walters, 1913, lot 233.
2. J. Shirley-Fox Coll.
3. Lord Grantley Coll., *ex* Rashleigh, lot 698. (Pl. XXII, 5.)
4. Ashmolean Museum, Oxford.

The first two are from the same pair of dies, while the other two are from different dies on both sides. We have therefore three obverse and three reverse dies, and no links between them.

The half-groat, to which Mr. Walters referred, and which has the name of Richard mutilated, has the same lettering as the Henry coins, but differs from them on the reverse in having the N's in 'London' barred.

Yet another group of half-groats must be considered. These read EDWARDVS, the obverse die being of the 1369–77 period. The reverse (Pl. XXII, 4), however, is of late Richard II style, similar to the coin last described. Mr. Lawrence in his paper on Edward III quite properly called attention to this curious feature, namely, an obverse

die coupled with a reverse die of some twenty years later, but did not offer any explanation of it. The fact that the reverse die is of the last issue of Richard II plainly indicates that the coins in question cannot have been struck before that date. But why should Richard strike coins with Edward's name at so late a period in his reign? One might have expected him to strike such coins at the beginning of his reign, and no doubt he did so, but it is surprising to find them at the end of the reign.

If we assume that the coin was struck by Henry IV, the position at once becomes clearer. Henry claimed his right to the throne from his descent from Edward III, whose grandson he was. There would therefore be no objection to the use of the name of Edward, although, of course, that of Henry would have been preferable. The obverse die with the name of Edward had, we know, survived in good condition, and it appears much more probable that it would have been used by a moneyer of Henry's than by a moneyer of Richard's.

One is naturally hesitant to put forward a theory that a king early in his reign struck coins in three different names, especially when one of the kings whose name appears had died twenty years before. The evidence of the coins, however, appears to me to point to no other satisfactory explanation. In the case of the half-groat reading 'Edward', we can, I think, say with certainty that it was not struck before the latest years of Richard II's reign, and, this being the case, it appears much more probable, for the reasons I have stated, that it was struck by Henry IV. The case of the half-groat with the name of Richard mutilated was much less certain and the evidence less complete until the discovery of the mule penny in the Fitzwilliam Museum, which proves that Henry did, in fact, strike coins from dies with the name of Richard, although the mint authorities appear to have made a more or less half-hearted attempt to obliterate the name. Having obtained this direct evidence in the case of the penny, I think we are justified in extending it to the half-groat, which has similar features.

There remains still to be discussed the question of the groats. No heavy groat exists with the name of Henry, although groats of the light coinage are known from more than one die with the name of Richard altered to Henry in the die. One might expect these dies to have been used in the first place for any heavy groats of Henry IV, and to have been subsequently made suitable for the light coinage by the addition of a slipped trefoil on the breast, and of an annulet and a pellet by the crown, the three marks of the light coinage. If this was the case, no specimen of the issue has survived as far as

we know. Mr. Walters, however, in his paper on Henry IV ascribed to that king a very rare variety of the groat in his collection, having the name of Richard and a crescent on the king's breast (Pl. XXII, 1). Among his reasons for this attribution Mr. Walters mentions that the crescent mark is found on nobles of Henry IV and was a badge of that king's, but was not used by Richard II on his coins. He also calls attention to the fact, above mentioned, that light coins are known of Henry IV with the king's name altered from Richard (Pl. XXII, 2), and deduces from this that Henry struck heavy groats with the name unaltered, and may even have made fresh dies with the name of Richard, since, to quote Mr. Walters's words—'a die actually made in the reign of Richard II could hardly have lasted in good state until the 13th year of Henry IV', the year in which the light coinage was introduced. These arguments do not, in my opinion, take sufficiently into account the historical difficulty in suggesting that Henry, a usurper to the throne, would be likely to have made fresh dies bearing Richard's name, and in the light of the evidence reviewed above they appear singularly untenable. Let us examine them in detail.

In the first place the crescent mark. Whilst it is true to say that this is found on coins of Henry IV, it is now known that it is also found on nobles of Richard II, e.g. on the rudder of a noble in Mr. Lockett's collection. Then as to the die-survival. We have already seen that a die of a half-groat survived in good and usable condition for twenty years, so that there is no reason why the die of the light groats with the name of Richard altered to Henry should not have survived the thirteen years that elapsed between the death of the latter and the issue of the light coinage by Henry IV, especially as we know from the mint accounts that the coinage during this period was exceptionally small. I feel, therefore, that the evidence advanced is not sufficient to justify us in ascribing this very rare groat to Henry's reign, especially as the evidence of the other silver coins points to steps having been taken at the mint to alter or mutilate the name of Richard as far as possible, or even to substitute where practicable that of Edward.

The theories that I have put forward can also be applied more generally to cases where two groups of coins apparently not consecutive are found muled. This occurs from time to time and has led to confusion in attempts to arrange the series in question. If, however, we accept the possibility that in the Middle Ages dies may on occasion have been used for a short time and then been discarded whilst still in good condition, and that they may have been retained in the moneyer's stock of dies to be used subsequently when no

confusion could arise as to the privy marking, we may be able to explain a number of difficulties that have hitherto baffled us.

That the instance I have quoted is not a unique case of die-survival, though probably an exceptionally long one, is shown by the existence of two specimens of a half-groat of Henry V (one in the British Museum, the other in the Ashmolean collection) the obverse of normal type, the reverse from an early die of Richard II (Pl. XXII, 7). This indicates a period of die-survival of some thirty years, a really remarkable occurrence. Details of this coin, which have not, I believe, been fully published before, are as follows:

Obv. ✠hENRIC (DI × G)RA × REX × ANGLIE · Z · F' Broken annulet to left of crown. Tressure of 12 arches.
Rev. ✠POSVI DEVM : A DIVTOR EM : MEV̄
CIVI TAS LON DON̄

As a matter of comparison the true coin of Richard II (Pl. XXII, 6) and the true coin of Henry V (Pl. XXII, 8) are shown. The latter has the same obverse die as the mule. These two coins show how the half-groat under discussion links these two widely separated issues. I have not, unfortunately, been able to trace the actual coin of Richard of which this is the reverse die.

We have learnt a great deal in recent years about privy marking and the trials of the pyx, and no doubt from time to time the necessity of altering the mark must have led to the discarding of dies still in serviceable condition. As far as we can see from the records, the trials, which were originally held at regular quarterly intervals, were gradually held over, until sometimes coins issued during two or three years were tried together. All this points to a certain relaxation of the originally strict regulations at the mint, and the use of dies that were so out of date as those mentioned seems to confirm this state of affairs.

THE MONEY OF THE BOY BISHOP AT BURY ST. EDMUNDS

J. B. CALDECOTT, F.S.A.

ON St. Nicholas Day (6 December), that of the patron saint of children, one of the choristers of cathedrals, abbeys, and many of the larger churches was elected as boy bishop by the votes of the other choristers and held office until Innocents' Day or Childmas (28 December) and during that period exercised the functions of the real prelate or abbot.

In Gregorie's *Episcopus Puerorum*, 1650, p. 114, we read: 'The Episcopus Puerorum was to bear the name and hold up the state of a Bishop, answerably habited with a crozier or Pastoral Staff in his hand and a Miter upon his head.'

He is known as Episcopus Puerorum, Parvus Pontifex, Episcopus Innocentium, and, in English, as St. Nicholas Bishop and Barne bishop, the latter from the old word bairn for child.

He was attended by other choristers as dean and prebendaries,[1] celebrated Mass, and preached a sermon on Innocents' Day, two of which, evidently written by an older hand, are extant, one preached at St. Paul's (15th century) and the other at Gloucester, 1588.

The first reference to a boy bishop the writer can find is that one said Vespers before Edward I in 1299 and that 'the King gave a considerable present to him and the boys that sang with him'.

It might be interesting to speculate what the real bishop did during the period of his juvenile copy; he probably retired to one of his numerous country manors for a well-earned holiday.

The boy bishop made a circuit of the town blessing the people and collecting money from house to house, and during his term of office made a progress to the large houses of his district.

The 'Account of Nicholas of Newark, guardian of the property of John de Cave', a boy bishop of 1396, records such a visitation and the presents he received, from titled persons, of gold rings, nobles, and a silk purse, whilst from rectors and priors he received a quarter of a mark, and he appears to have been generally welcomed.

There seems to be a general impression that the boy bishop's reign of office was a burlesque of the services of the church; but that, in England at any rate, he and his attendants conducted them-

[1] Lloyd's *Encyclopaedic Dictionary*.

selves in a proper manner is shown by the statutes of St. Paul's School in which Dean Colet directs that the scholars 'shall every Childermas—that is Innocents' Day—come to Paule's Church and hear the Childe Byshop's sermon and after be at high Masse and each of them offer a penny to the Childe bishop and with them the maisters and surveyers of the schole',[1] and in the Register of capitulary acts of York Cathedral it is directed that the boy bishop be handsome and elegantly dressed.

On the Continent, however, the custom led to excesses and a Saturnalia, and it was prohibited—with little effect—by the Council of Basle, in 1431, whilst in England it was not suppressed until 1542, was revived by Mary in 1554, and finally abolished by Elizabeth.[2]

An institution that may appear to modern minds extraordinary and ill conceived was not so to those of the Middle Ages; then there was not the hard-and-fast line now drawn between secular and religious subjects; then they knew little distinction between the two.

One has only to observe the carvings on capitals, roof bosses, and miserere seats, the borders of illuminations and the mystery plays, and in the thirteenth-century Montpellier musical manuscript each tune has religious and secular words to it; what would now appear irreverent was not then so considered.

The celebrations of the Massacre of the Innocents by children would be impressive to old and young alike and calculated to interest the latter in the rites of the Church, in much the same way as children's services are held to-day.

The leaden pieces which are the subject of this paper have been found only in Bury St. Edmunds, so one can safely assume that their issue in England was confined to the abbey there, one that had a long tradition of coinage rights.

On the Continent the practice appears to have been general, and numerous examples in France are recorded in a very painstaking work by M. Rigollet of Amiens, *Monnaies inconnues des Évêques des Innocens*, published in Paris, 1837, and these together with the Bury St. Edmunds pieces are the subject of a paper in the *Numismatic Chronicle* of 1843, p. 82, by Mr. D. H. Haigh. Some of the French pieces definitely bear on them, 'Moneta Episcopi Innocentum'.

Later in *The Coinage of Suffolk*, by Charles Golding, London, 1868, a list and illustrations of them are given, many of the actual specimens there figured being now in the possession of the writer.

[1] Knight's *Life of Colet*, p. 362; Dugdale's *History of St. Paul's*, p. 265.
[2] Strype's *Eccl. Mem.*, vol. iii, ch. 39, p. 310.

A strong argument in favour of their attribution to the boy bishop is furnished by the inventories taken in Westminster Abbey, 1388,[1] and at the Dissolution, *c.* 1530,[2] the references to which the writer owes to the kindness of Mr. Laurence E. Tanner, M.V.O., F.S.A., the Keeper of the Muniments.

In the Inventory of 1388 the following entry occurs with reference to the mitres: 'Et in incremento de novo una mitra pro festo Sancti Nicholai ad parvum pontificem deputata, cum platis argenteis et deauratis diversisque lapidibus in eiusdem insertis cuius pars anterior continet SANCTE NICHOLAE, pars autem posterior ORA PRO NOBIS de literis ex margaritis consitis cum duabus labellis eiusdem operis ex dono R. Tonworthe'.

This description is repeated in the Dissolution Inventory, where the mitre is termed 'The VI myter for Seynt Nycholas bysshoppe'.

The inscription quoted is from a versicle and response: ℣. 'Ora pro nobis beate Nicholae', ℟. 'Ut digni efficiamur promissionibus Christi', and it occurs with various small variations and abbreviations on the larger pieces imitating the groats, whilst the name only of Saint Nicholas occurs on those imitating the pennies.

The Inventories of 1388 also contain a very complete list of the vestments of the 'Saynt Nicholas bysshoppe', most of them the gifts of Ralph Tonworthe before mentioned, who was westerer of the abbey.

The attribution of the pieces here described to Bury St. Edmunds is confirmed by one of them bearing on the reverse the arms of that town, by two others, one (No. 6 in my list) with the legend 'Ave Sace Nicholaes de Bury', and the other (Golding, Pl. II, No. 1) with 'Villa Buri' on reverse, and by the fact that all specimens (said to be about 100 in number) have been found in Bury St. Edmunds or its immediate neighbourhood.

The late Dr. G. C. Brooke (*Num. Chron.* 1922, p. 140) gives an account of certain impressions between the words of the inscription on a bell at Shelley Church, Suffolk, which came from the foundry at Bury St. Edmunds. These correspond with some of the pieces described in this paper, the reverse legends on which Dr. Brooke says are phrases from an anthem at the Feast of St. Edmund, a statement which, applying as it does to all of them, may require some qualification.

As to their date of issue, from the number of varieties and the

[1] *Archaeologia*, vol. lii, 'An Inventory of the Vestry in Westminster Abbey taken in 1388', J. Wickham Legg, F.S.A., 1890.

[2] 'The Inventories of Westminster Abbey at the Dissolution', by The Rev. M. E. C. Walcot, B.D., F.S.A., *Transactions of the London and Middlesex Archaeological Society* (1873), vol. iv, part III.

usual deterioration of design and execution shown by them this must have extended over a fairly long period.

Those which from their lettering must be the earliest, and in design are quite equal to the silver regal coins of the period, the writer would attribute to the reign of Henry VI; probably their issue continued, with gradual deterioration, up to the Dissolution.

Mr. Haigh, in his article previously mentioned, speaks of them as burlesques of the episcopal prerogative, a view from which the present writer would dissent, as there is nothing in their designs or inscriptions of a burlesque character, and, as the boy bishop was a minor copy of the real bishop, he may well have distributed pieces in a baser metal as largesse on his progresses and (or) they may have been given to those who attended his masses and sermons.

In England these appear to be the only instance of a practice fairly common in France; they recall a peculiar and somewhat obscure custom in Church history, and as such the writer ventures to hope that they may appeal to a wider circle than that of the few collectors of jettons and tokens.

SERIES I: LARGE SIZE, STRUCK IN IMITATION OF GROATS

The first and evidently the older series bear on them the head of Saint Nicholas wearing a mitre and dividing the letters S–N, sometimes without and sometimes with one or two croziers.

The obverse inscription is, with slight variations, the invocation 'Sancte Nicholae ora pro nobis', and the occurrence of this upon the boy bishop's mitre in Westminster Abbey, previously mentioned, seems definitely to assign these pieces to the holder of that dignity.

On the reverse there is a close imitation of the design of the fifteenth-century groats, the cross with three pellets in the angles and two concentric circles of lettering.

1. *O.* ·:·PIE · NICHOLAE · ORA · PRO · NOB
   R. Outer circle: EGGE : AD : VOS : VOCASTIS : ME:
   Inner circle: AVE · REX · GENTIS
2. *O.* +SANCTE NICHOLAE: ORA PRO NO
   R. Outer circle: EGGE NOVA FACIO OMNIA
   Inner circle: AVE REX GENTIS

3. *O.* ÷SANCTVS : NICHOLAVS : ORA PRO NOBIS
   R. Outer circle: · AVE REX GENTIS ANGLORVM
   Inner circle: : MILES REGES ANGLORVM
   Golding records that on the visit of Henry VI to the shrine of St. Edmund an antiphon with the words on the outer circle was sung.

4. *O.* ÷SANCTE : NICHOLAE : ORA : PRO NO
   R. Outer circle: : AVE RE : X GNTIS : ANGLO : R+MILE:
   Inner circle: ECCE REGES ANGELOR+
   This has a crozier either side of the head.

5. *O.* + : SANCTVS NICHOLAVS ORA : PRO : NOBIS:
   R. Outer circle: :.·.AVE RX : GENTIS ANGLORV : M MILES:
   Inner circle: : O NICHOLAE : EPISCO REGES:

6. *O.* aue sace nicolaes de bury
   R. No inscription, wreath-border.
   This piece seems definitely to give these pieces to Bury St. Edmunds. It has no initials on the obverse, the crozier is to the left and the lettering of a script character, probably early sixteenth century.

SERIES II: LARGE SIZE, CRUDE FABRIC.

There are numerous pieces, such as that illustrated above, very crude in character, with blundered legends and of heavier fabric, which must come in date after the preceding.

7. *O.* Blank.
   R. Outer circle: SANCTVS NICOLAVS
   Inner circle: AVE REX GENTIS, forked ends to cross.

8. *O.* Mitre only: N · I · C · O · L · A · V · S
   R. Outer circle: illegible.
   Inner circle: AVE REX GENTIS (?)

9. *O.* Mitre with crozier to right.
   R. Scrolls in place of legends both sides.

10. *O.* As last within wreath border.
    R. Scroll border.

11. *O.* Pointed mitre over crozier, scroll border.
    R. Arms of Bury St. Edmunds, within scroll border.

SERIES III: SMALL SIZE, STRUCK IN IMITATION OF PENNIES.

The next series is that imitating in size and design the fifteenth-century pennies.

12. *O.* Mitre SANCTVS NICHOLAVS
    R. Cross and pellets AVE REX GENTIS
    There are several slight abbreviations of the obverse legend.

13. *O.* Mitre ORA : PRO NOBIS SNT NCH
    R. : AVD : RDX GDN : TIS :

14. *O.* As no. 12, but OR at end of legend.
    R. As nos. 13 or 15, or with E.

15. *O.* INTERCEDAT · PRO · NO
    R. AVE REX GENTIS.

16. *O.* Large mitre, no legend.
    R. BEATI NICHOLAI.

17. *O.* Small mitre A : V : E : A : V : E :
    R. Cross and pellets : A : : V : : E : : M :

18. *O.* Reversed И. Legends uncertain.

19. *O.* Small mitre and crozier : S N : S N : S N : S N.
    R. Cross and pellets, scrolls in place of legend.

20. *O.* Mitre and crozier to left.
    R. Cross and pellets, scrolls on both sides in place of legends.

It may be of interest to record that the boy bishop has been revived in some churches and notably at Salisbury Cathedral during the last year or two, and that this Cathedral possesses a tomb of a boy in bishop's vestments which has been considered to be that of a boy bishop who died during his period of office.

HISTORICAL BRITISH COINS

ARNOLD MALLINSON

(*Plate XXIII*)

THE object of this paper is to demonstrate the value of British coins as historical commentaries. For this purpose a small number of rare coins in Oxford collections has been chosen. It would have been possible to enlarge the selection or make quite a different one. The range is very wide, but it was suggested to me so to make it by the late Dr. Brooke. To him we shall be ever indebted for making the public conscious that the study of English numismatics had been put on a worthy scientific footing. For English coins there had been no *Historia Nummorum* until in 1931 and 1932 respectively Sir Charles Oman and Dr. Brooke published general books on the subject. There had, however, been an Eckhel in Martin Folkes, the most important edition of whose *Tables of English Silver and Gold Coins* appeared in 1763. To this old standard work I have had recourse once again in publishing Edward VI's unique angelet, first engraved by him and then lost to view for nearly two centuries.[1]

THE ROMAN EMPIRE IN BRITAIN

No. 1. Carausius, Diocletian, and Maximian.

Obv. CARAVSIVSETFRATRESSVI

Jugate busts to left, radiate, of Diocletian, Maximian, and Carausius. Their right hands are raised.

Rev. PAXAVGGG.

Pax standing holding an olive branch and sceptre. S P in the field to left and right. In the exergue C.

Æ Antoninianus. Wt 78 grs. (Plate XXIII, 1.)

No. 2. Allectus.

Obv. IMPCALLE CTVSPFAVG

His laureate bust to right.

Rev. PAX AVG

Pax galloping to left in a biga. In the exergue ML.

AV Aureus. Wt 67 grs. (Plate XXIII, 2.)

No. 1 is another unrecorded specimen of the famous coin of *Carausius et fratres sui*. It appears to come from the same dies as the Rothschild specimen in the Bibliothèque Nationale. This is the rare type showing the emperors with hands raised.

[1] Cf. *Num. Chron.* 1933, p. 8, 'A Rose-marked Pound of Queen Elizabeth'.

Historically the obverse type is conciliatory. Exact details of the period are obscure or unreliable as the chronicles giving account of it are late in date. The peace pact to which the coin alludes was concluded in A.D. 289–90.

Interest aroused in historians by the assumption of the purple by Carausius, admiral in charge of the *Classis Britannicae*, might lead to mistaken conclusions, which, in contemporary opinion, the minting of no. 1 was designed to obviate. Carausius did not of course regard himself as a Roman emperor in opposition to two other emperors on the continent. The coin reminds us that the Empire was one and indivisible. Diocletian had provided two emperors and Carausius by the peace which he made created himself a third, minting a coin not only intended to proclaim this fact but also to show that he did not wish to assume more than what he thought was his fair share of authority in the undivided empire. The coin shows that he had no idea of setting up an independent empire in Britain, but merely that Britain had become a centre of imperial authority. How far *Carausius et fratres sui* impressed Diocletian and Maximian we cannot tell. Probably not much. In any case the event was not commemorated on any coins issued by their authority. However, under the existing conditions it paid them to recognize a power that was carrying out a work regarded as fundamentally important.

Carausius's successor was a man of widely different character, and the only one of his coins reading AVGGG was probably issued in error. Nevertheless the mint of London produced some coins of exquisite workmanship as is illustrated by no. 2, an aureus bearing a superb portrait and a reverse anticipating a pattern farthing of another Augustan age.

OFFA'S GREAT EXPERIMENT

No. 3. Offa, King of Mercia.

Obv. ✠◇FFA REX MERCIORUM

Bust to left draped and diademed in a Roman style; in the field to right, a cross.

Rev. ✠DUD

A cross consisting of four hollow lobes containing trefoil ornaments. Similar ornaments are in the angles of the cross. Pellets are disposed at various points in the field.

Æ Penny. Wt. 20 grs. (Plate XXIII, 3 *obv.*)

It is becoming increasingly possible to obtain a clear view of the workings of the Canterbury mint in the eighth century. This mint fell into the hands of Offa after the battle of Orford in 774. It is

probable that a Kentish die-sinker had been responsible for the famous 'wolf and twins' coin of a King Æthelberht who, as we are not left much room to doubt, was Æthelberht II of Kent. He died twelve years before Offa obtained possession of the mint. His coin seems to form a link between Offa's pennies and the old English sceats. Compare it with the coin described above and you will immediately detect a homogeneity of fabric, production, and style.

In the eighth century there arose in Kent and Mercia a new style of art quite different from the old Celtic and Northumbrian culture, in decline at this period. The new art-forms have connexions with more enduring traditions and they are less exuberant in expression. They are complex, but certain points of interest bearing on the coinage emerge. The portrayal of the human form is an important feature. A pervading Romanizing influence is felt which is neither a copying of models ready to hand nor yet the relics of some ancient tradition but the expression of a still living inspiration which in the East is growing into Byzantine forms. Contemporary art to which reference may be made is shown us in the work of the Canterbury illuminators of the Vespasian Psalter,[1] which probably owes more to influences from across the Channel than it does to Northumbria, separated as the latter was by a formidable belt of Mercian forest.

It has been said that the reign of Offa marked the birth of English foreign policy. His relationship with Charlemagne brought about a development of trade. Cultural connexions extended to Italy. Once in the possession of the Mercian mint, Offa began experiments. He tried a gold coinage and then a silver portrait-coinage which was unsurpassed in any age for vitality and charm, as is exemplified by the specimen under discussion. Of this coin there appears to be only another example known. It is in the British Museum from the Cuff collection.[2] This new specimen came from King's Sutton. Both coins are from the same dies. Though most of Offa's pennies are purely in Saxon style, this one is Roman with a full Latin inscription unlike any other except a certain penny of Ælfred.[3] To Offa's coin might be applied some words written by Sir Cyril Fox on Offa's Dyke, 'It reminds one forcibly of Roman genius and Roman energy'.[4] Offa's coins seem to have been all produced within a short space of time, the work of a single school or even of a single hand, and they are of an experimental character. They

[1] Cotton MS. Vespasian A.I.
[2] Cuff Cat., no. 269. B.M. Cat., no. 13 (wt. 16·3 grs.).
[3] Brooke, *Eng. Coins*, pl. xiii, 2.
[4] *Arch. Camb.* lxxxi–vi (1926–31).

were, so to say, trial pieces, and, like some other beautiful coins such as Henry III's gold penny, they did not meet with public approval. Later, a heavier and cruder coinage became a practical commercial proposition. Offa's only crude portrait-penny[1] bears the signature of the same moneyer as this fine coin, viz. DVD. So this penny must have been one of the later efforts of the school of fine engravers probably endeavouring to promote circulation by a reversion to a Roman style. The crude coin itself is an imitation of one of the fine pieces.[2] There is one other point of comparison. The milled coinage of Elizabeth was rejected for the inferior hammered money. Much of the milled coinage which has survived has been purposely defaced by its contemporary owners; a similar defacement may be noted in Briot's coinage of Charles I. This was done to make it acceptable with the hammered coinage in circulation. In the same manner Offa's pennies have suffered and they are frequently found slightly defaced so that people would accept them with the bad-looking coins forming the bulk of the currency. This coin, has, however, escaped defacement.

THE MYSTERY OF THE RYALS AND THE FLOWER OF THE COINAGE

No. 4. Henry VII.

Obv. HEN·RIC·DI·GRA·REX·ANGL·Z·FRANC·DNS·IBAR

A half-length figure of the king superimposed upon the upper part of a ship.

Rev. IHC·AVTEM·TRANSIENS·PER MEDIV·ILLORV'·IBAT

A small shield of France in the centre of a Tudor rose.

MM. Cross fitchée.

Æ Ryal. Wt. 118 grs. (Plate XXIII, 5.)

No. 5. Henry VII

Obv. HENRICVS × DEI × GRA: REX × ANGL: ET × FRAN: DNS: HIB'N'

The king upon a throne with high canopy and broad seat. He holds the orb and sceptre.

Rev. ✕ IHESVS ✕ AVTEM ✕ TRANSIENS ✕ PER ✕ MEDIVM ✕ ILLORVM ✕ IBAT ✕ ✠ ✕

A small shield upon a decorative rose.

MM. Obv., Lys. Rev., Dragon.

Æ Sovereign. Wt. 239·5 grs. (Plate XXIII, 4.)

No. 6. Mary I.

Obv. MARIA · D: G' ANG: FRA: Z · HIB: REGINA · M · D · L III ·

[1] B.M. Cat., no. 28.

[2] Ibid. 22.

The queen, a half-length figure, superimposed upon the ship.

Rev. *A Dno* legend. A rose behind which are the sun's rays, in the centre of the cross royal.

MM. Pomegranate.

N Ryal. Wt. 119 grs. (Plate XXIII, 8, *obv.*)

No. 7. Elizabeth.

Obv. ELIZABD·G·ANG·FR·ET·HIB·REGINA·

The queen (holding sceptre instead of sword) above the deck of ship.

Rev. Legend and type of the ryal.

*MM.*A

N Ryal. Wt. 119·5 grs. (Plate XXIII, 9, *obv.*)

No. 7 *a*. A similar ryal from the same obverse die but a different reverse with mint-mark escallop (queried by Kenyon). Wt. grs. 118.

No. 8. James I.

Obv. IACOBVS D:G:MAG:BRIT:FRA:ET HI:REX

A lion crowned and holding a sceptre, supporting a shield.

Rev. A DNO:FACTVM EST ISTVD ET EST MIRABI:

The rose and rays of the ryal with alternately at the points of the rays four lions and four lys crowned.

MM. Spur rowel.

N Spur Ryal. Wt. 98·7 grs.

Between 1465 and 1470 Edward IV made an issue of about half a million of the new rose-nobles or ryals. Then as a practical coinage they ceased to be minted. Their place was taken by the angels, and in the coinage of subsequent monarchs from being the commonest they become amongst the rarest of English coins without an exception. They achieve two other distinctions. They gain great foreign popularity, and their multiple becomes the Tudor sovereign.

The Edwardian rose-noble was immediately accepted on the continent, from which it probably brought its new name the rial or ryal (Fr. *Royal*), though the foreign name was not used everywhere abroad. In Holland, one of the countries of its adoption, it was called *rozenobel*. The name ryal became so much in vogue in Britain as to be given to Edward VI half-sovereigns, Mary Stuart three-pound pieces, and other coins. Apart from the great issue of Edward IV only a few true ryals were minted by the Tudors and they end with James I.

No. 4 is one of about five which are known. They are all from the same dies, and their multiple is the first sovereign of Henry VII (mm. cross fitchée), an even rarer coin. There can have been but a minute issue of both of them. They were ordered by the commission of 1489 and were experimental in character, a fact which accounts for the extraordinary mistake of the French blazon on the reverse of

the ryal. This must have been an error which discouraged the perpetuation of a fine design. The hand which was responsible for this also blundered the legends on the obverse of the second sovereign and the reverse of the first. The three coins go in a group together and may be thus connected with the date 1489. They have a barbaric magnificence.

No. 5, the lys-dragon sovereign, forms with a similar type (mm. dragon both sides) a group by itself. This coin is the *chef d'œuvre* of Alexander of Brugsal, who was appointed graver in 1494. It must have been issued some time between then and 1504 when the final type appeared. It is a work of sumptuous and polished perfection and, with the coin which goes with it, is justly described by Sir Charles Oman as the flower of the whole British coinage.[1] This claim has not always been put forward for this coin as it requires perfection of condition to support it, the design suffering badly when exposed to wear, and there can only be one or two specimens in mint state. The type is probably rather flamboyant for modern taste, but when perfect it shows itself to be worthy of the age which produced the Henry VII chapel at Westminster.

Nos. 6, 7, and 7 *a* are ryals of the Tudor queens. That of Mary calls for little comment except that all the specimens I have ever seen come from the same dies. The Elizabethan ryals, however, present great problems. They were issued at a period when many English coins were being copied in the Netherlands, especially the rose-nobles of Edward IV. At this period Leicester was conducting the campaign in the Netherlands with overweening ambition. There is reason to suspect him of coining money. He is known to have been in possession of dies. In a letter to him from Burleigh dated 21st July, 1556, there occurs the passage, 'I perceive your Lordship hath the stampes of the said rose-nobles which your offerer had provided'.[2] Did Leicester coin ryals on his campaign at Amsterdam and also at Gorinchem?[3] If so, was he responsible for the famous ryals with the uninterpretable legends, from dies which his 'offerer' provided? Further, did he take dies from London and coin ryals in the Low Countries which pass for English make? It is highly unlikely that the coins with the uninterpreted legends were minted in London, for then as now the royal titles were definitely fixed by authority. Probably these legends are just a confusion. So far, I have

[1] Oman, *The Coinage of England*, p. 242.

[2] Dr. A. O. Van Kerkwijk, 'Dubbele gouden Rozenobels door Leicester in 1586 geslagen', *Jaarboek*, 1918, p. 64.

[3] *Heef Leicester Rozenobels te Gorinchem gemunt?* A. Schulman, Amsterdam, 1930.

had an opportunity of examining about seven die-varieties of this coin, only two of which I could say without hesitation were minted in London. These two are (1) a variety with no lion to the left of the rose on the ship's side, and (2) a variety with the queen's sceptre behind the ropes instead of in front of them. Others of course may be of London make.

Despite the high standard and tradition in quality and art of the old system of ryals and sovereigns, they fought a losing battle and were ultimately replaced, for unfortunately as far as currency is concerned the rule is the survival not of the fittest but of the unfittest. Under James I, when they finally ended, the old English ship is at last replaced and the Scottish lion, brother to that which adorned the old lion-noble or Scottish angel of 1586, takes its place and is shown supporting the shield of the two kingdoms (no. 8). This is doubtless an allusion to the accession of the Scottish king to the English throne. James I, as is well known, took great personal interest in his mints. Even on the last issue of James's angels the Scottish lion adorns the prow, the stern, and the flag of the ship.[1]

THE TRANSITION

No. 9. Henry VIII.

Obv. HENRIC9 D' G' R' ANGLIE' Z FRA' DNS' HIBERIE'

A ship bearing a rose on the mast, on either side of which H R

Rev. TALI DICA' SIC9 MES' FLVTVARI(sic) NEQVIT

St. George and the Dragon.

MM. a rose.

AV George Noble. Wt. 70·2 grs.

No. 10. Henry VIII.

Obv. HENRIC × 8 · DI' GRA' ANGLIE × FRANCIE ET × HIB'E REX ×

The king enthroned, a traditional portrait with beard.

Rev. IHESVS AVTEM TRANSIENS PER MEDIVM ILLORV' IBAT

The Royal Arms with supporters.

MM. Lys.

AV Sovereign (issue of 1544). Wt. 190 grs. (pierced).

No. 11. Edward VI.

Obv. EDWARD9 • VI • REX • ANGL • FRANC • HIBER • Z¢

Uncrowned bust in armour to right.

Rev. SCVTVM • FIDEI • PROTEGET • EVM

A crowned rose-spray. On either side E R

MM. Rose.

AV Crown. Wt. 47 grs. (Plate XXIII, 7.)

[1] Cf. Brooke, plate xliv, 2.

These three coins represent the transition from medieval to modern styles of coins. Nos. 9 and 11 are unpublished varieties. In 1526 the first great signs of change are appearing. The George noble was the last new denomination to be minted in standard gold. It is a valiant effort on the part of the authorities to deal with the impending devaluation for which they are usually blamed. It is one of the few English coins to bear the image of a saint, and it is characteristic of a cardinal's coinage, for it bears a liturgical inscription. Though but a few specimens have survived, they almost all appear (like Elizabeth's ryals) to come from different dies. The sovereign no. 10 displays the transition in full swing, and the pattern piece no. 11 with its elegant realism, though probably only twenty years later than the George noble, is ages apart in feeling.

THE UNIQUE ANGELET OF EDWARD VI

No. 12. Edward VI.

Obv. EDWARD⁄ VI • D⁄ G⁄ A⁄ F⁄ Z HI⁄ REX

The Archangel Michael.

Rev. PER CRV⁄ TUA⁄ SALVA⁄ NOS • XPE

The ship, to left of mast ϵ, to right a rose.

MM. Ostrich head.

N Angelet. Wt. 37·5 grs. (Plate XXIII, 6.)

This unique angelet has hitherto been unknown except to Folkes.[1] Kenyon includes it only from Ruding's plates which come from Folkes. The latter does not state where he saw the coin, but he probably became acquainted with it in the same way as he knew of Elizabeth's rose-marked pound (i.e. the Knight collection). It belongs to the third period of the coinage (1550–3) when in the battle of the standards the coinage had returned to a series in fine gold. A point of interest in this angelet is the lettering, which is Roman and not Lombardic, with the exception of the C in CRV on the reverse, and the ϵ on the left of the cross on the ship's mast. This is not what might have been expected, as the corresponding angel has the lettering in Lombardic throughout. The end of the medieval letters is now in sight, but the crown gold of Edward VI retains them. The angel of Mary has Lombardic characters, but in her angelet the position is reversed from that of Edward VI and the initial on the left of the cross is Roman. I have, however, seen an angel of Mary with Roman letters throughout and those of Philip and Mary also have Roman letters. The last coins to retain the old alphabet are the Elizabethan ryals.

[1] *Tables.* Plate viii, no. 5. Engraved with exactitude even in shape from this coin.

A SCOTTISH ERROR

No. 13. James VI.

Obv. IACOBVS VI &c.

Half-length figure of the king to left.

Rev. HONOR REGIS &c.

The Scottish shield and the date 1581.

Æ Thirty-shilling piece. Wt. 341·5 grs. (Plate XXIII, 13.)

It was not until the 14th of April 1582 that forty-, thirty-, and twenty-shilling pieces were ordered. This unique thirty-shilling piece must then show a curious error in dating. There is nothing about it to suggest that it was in any way a pattern.

THE HAT-PIECE

No. 14. James VI.

Obv. ❀ • IACOBVS • 6 • D • G • R • SCOTORVM •

Bust of the king to right wearing a high-crowned hat.

Rev. ❀ • TE • SOLVM • VEREOR • 1592 •

The Scottish lion seated on a chair and pointing with a sceptre to the name of Jehovah in Hebrew in the clouds (יהוה).

Æ Four-pound piece. Wt. 68·5 grs. (Plate XXIII, 11.)

This curious coin is almost of a medallic character. The portrait of the king wearing an identical hat is to be found in an unpublished engraving in the Bodleian Library. This portrait may be dated to the period of the hat-piece, that is immediately after the king had returned from his wedding excursion. The reverse of the coin is of great historical interest. The 'chyre' of curious design is to be noted, and the lion sitting therein contains an allusion to 'God's silly vassal', himself, as does the legend *Te solum vereor*. What with private feuds, Catholic intrigue, and the open rebellion of Bothwell, he had need enough to advertise a courage which was probably more real than his subjects suspected.

THE OXFORD COINAGE

No. 15. Charles I.

Obv. CAROLVS • D : G : MAGN : BRIT : FRAN : ET : HIB : REX .·.

Half-length figure of the king to left.

Rev. EXVRGAT : DEVS : DISSIPENTVR : INIMICI ·· RELIG : PROT LEG : ANG LIBER : PAR.

The legend is inscribed on a continuous ribbon, very broad and wavy. Beneath the date in very large figures 1643. The two centre figures lower than the outer ones.

Æ Treble sovereign. Wt. 411·4 grs. (Plate XXIII, 14.)

There appear to be only six dies used for the obverse of these sumptuous medallic coins. They go in pairs for the three years 1642, 1643, and 1644 (though owing to various combinations of reverses the last 1642 obverse encroaches into 1643). There are considerably more reverses. I have counted fifteen. The reverse of this coin is from an unpublished die.

THE SCARBOROUGH DISH

No. 16. A Scarborough siege-piece; being a portion of the rim of a dish stamped with a castle and the value S D
ii ii
Æ Two shillings and twopence. Wt. 227·7 grs. (Plate XXIII, 12.)

In this piece of a dish a generous portion of the rim is preserved. The denomination is unique (not quoted by Brooke). The amounts for which these siege-pieces were issued were of course fortuitous, being regulated by the weight of the piece after it was cut. Thereafter they become money circulating for their marked value whatever the weight becomes.

THE END OF THE MINT-MARKS

No. 17. The Commonwealth.
Obv. ·THE·COMMONWEALTH·OF·ENGLAND·
The shield of St. George.
Rev. ·GOD·WITH·VS·
Shields of St. George and of Ireland, and the date 1659.
MM. Anchor.
Æ Half-crown.[1] Wt. 225·3 grs. (Plate XXIII, 10.)

The dating of this half-crown makes it unique. All the coins with the anchor mint-mark are rare, and of those dated 1659 the only one of which there has been certainty till recently is the sixpence, of which there are only one or two specimens. The shilling appears to be doubtful[2]. This half-crown is the only other coin to bear the date 1659. This is remarkable, as most dates are represented upon the Commonwealth coinage. Hawkins mentions that he saw a half-crown bearing this date in the Cuff collection, but in poor and uncertain condition[3]. No such coin, however, appears in the Cuff catalogue. The one great point of interest in the Commonwealth

[1] Both the provenance and the appearance of this coin makes its authenticity indubitable.
[2] [A shilling of 1659 is now in the British Museum. Edd.]
[3] Hawkins, p. 374.

coinage is the complete system of dating. It is the first series of English money with dates on all denominations (except the very small pieces). With the exception of Charles II's hammered issue dating henceforth became universal on all English coins, and this meant the end of the system of mint-marks, which were strictly speaking not mint-marks but date-marks or issue-marks. The Commonwealth mint-marks are the merest convention. The change from the sun to the anchor probably marks the passing of Oliver and the accession of Richard.

The issue of half-crowns of date 1659 must have been very small, but the times were troubled and uncertain.

Nos. 2, 4, 6, 7, 11, 12, 13, 16 are in the Ashmolean Museum. No. 10 is in the Wake Room at Christ Church. The remainder are in the writer's collection.

My grateful thanks are due to the Keeper of the Ashmolean Museum and the Dean of Christ Church for permission to publish coins in their charge.

THE COINAGE OF THE CHANNEL ISLANDS

H. E. STAPLETON

MR. H. E. STAPLETON, in a paper entitled 'The Coinage of the Channel Islands', gave an account of a find of *c.* 12,000 coins with the barbarous types generally supposed to be derived from those of gold staters of Philip of Macedon, made near St. Brelade in Jersey during March 1936. The coins, on the average, contained 20 per cent. silver and 80 per cent. copper. No Roman or inscribed Gaulish coins were found with them, a most unusual feature. Similar finds had previously been made in the Channel Islands, particularly a large find of 982 coins in 1820, the exact find-spot of which is unknown, and the Rozel find of 1875 containing some thousands of coins. A map of the find-spots of coins of similar class in Armorica showed that they were chiefly confined to a small area, particularly the territory of the Curiosolites and the Redones. Such finds were very scarce in the territory of the Veneti and the extreme west of the Armorican peninsula. The detailed examination of the coins from this hoard was as yet far from complete[1]; the circumstances leading to its deposit and its date were very uncertain. These were questions on which any help and advice would be greatly appreciated.

The President expressed a hope that members present would offer suggestions. He thought it doubtful that these coins owed much to Philippic prototypes, though it was possible that they might show traces of Alexandrine influence. The gold coins of Lysimachus had been copied far north of Thrace and the Heracles type on the silver tetradrachms of Alexander had found imitators far away from Macedon. In types such as these there might be traces of several influences, one of which eventually became most popular and ousted the others.

Mr. Derek Allen said that the interest of this find was contained more in the coins which it did not include than in those which it did. He reiterated the connexion of the types with those of Philip. For purposes of dating, the gold coins with similar reverse types (of the Baiocasses and further east) should be taken into consideration.

[1] A preliminary report of this hoard by Major N. V. L. Rybot has appeared in the *Bulletin* of the Société Jersiaise, xiii, 1937, pp. 153–190.

SECTION V

ORIENTAL

THE BEGINNINGS OF COINAGE IN INDIA

JOHN ALLAN

THE object of this paper is to examine the evidence available for dating the earliest Indian coins and to ascertain what chronological and other deductions it is possible to make regarding them. Cunningham, it will be remembered, thought that the punch-marked coins were of great antiquity and might even go back to 1000 B.C., Vincent Smith and others have taken a more conservative view. The paper is intended to give a résumé of the conclusions to which I have come in *The Catalogue of Coins of Ancient India in the British Museum* (London, 1936), to which the reader may be referred for more detailed arguments.

The coins of India down to, say 100 B.C. may be divided into three great classes: punch-marked silver, punch-marked and cast copper, and coins bearing inscriptions which enable them to be attributed to a particular dynasty or area. Of these we shall deal here with the punch-marked silver. From the very well-known series to which, since the time of Prinsep, the name 'punch-marked' has been given, we may isolate a series of small bars of silver, slightly concave in shape, bearing a six-armed symbol, an arrangement of crescents and circles on the spokes of a wheel of which several varieties can be distinguished. These come from the extreme north-west. The British Museum specimens came from Punjab collectors, Stubbs, Grant, and Whitehead, the last-named having purchased his in Rawal Pindi. Sir John Marshall found a number at Taxila, the most notable find being one in which they were associated with ordinary punch-marked silver, a Persian siglos, and tetradrachms of Alexander the Great and Philip Aridaeus (d. 316 B.C.). They may therefore be attributed to the Taxila country and assumed to have been in circulation about 300 B.C. One interesting feature about them is their weight. They weigh 176–8 grains with quarters and eighths: that is to say, they are double sigloi ('Persic staters'). A coin of this type of the siglos denomination is not known, presumably because the siglos itself was used, as this find shows. These pieces come from an area which from the end of the sixth to about the middle of the fourth century B.C. was an Achaemenid province. They may be of a date as early as the period of Persian rule, but I am inclined to think they

are a little later and represent the first independent coinage of Taxila, and belong to the latter half of the fourth century B.C. We are told by Quintus Curtius that Omphis king of Taxila presented to Alexander the Great 80 talents of *argentum signatum*. This is clearly more than bullion and yet something that to the Western mind was not exactly money, or at least did not fully conform to the Greek or Roman idea of a coin. These pieces then rather than the punch-marked coins are the 'stamped silver' which was presented to Alexander, and they certainly were the money of Taxila in his time. We may therefore put the beginning of the silver coinage of India in the second half of the fourth century.

The problem of the extensive series of coins known as 'punch-marked', because they seemed to be stamped with innumerable punches, is a difficult one. The belief that the various punches or stamps were struck at different times by the different hands through which the coins had passed has long prevented their real nature being recognized. It is true that the punches were put on separately and not by a single die, but they were all stamped at the same time by the authority issuing them and not from time to time by private individuals. A careful examination shows that the types are as distinct as those on any other series of coins. They are not by any means a primitive type of currency. The shape seems to be of no significance. There are as many round as square, using both words in a wide sense. The two shapes correspond to two methods of manufacture: the round are stamped from cast globules and the square cut out of a sheet of metal. Some are struck on one side only: a large number have one or two punches only on the reverse: a third class has many very small marks on the reverse which suggest 'shroff' marks, as the obverse symbols were at one time thought to be. An analysis of the obverse symbols shows that every obverse bears five distinct punches and that a classification according to these is possible. Of these five one is almost always the sun ( ), the second a six-armed symbol, a circle with pellet in centre and six symbols, taurines, arrow-heads, &c., around. The remaining three change continually. One finds groups *abcde*, *abcdf*, *abdeg*, and so on. The symbols that make up the type are very neatly executed. Many of them are readily recognizable, and it is only lack of materials for comparison that prevents others from being identified. One thing that can be definitely affirmed, against the majority of earlier writers, is that the symbols

have no religious significance, Hindu or Buddhist. They come from the animal or plant world or are combinations of symbols the exact meaning of which we do not know. Human figures are very rare and indeed probably only one occurs, and this can be identified as Kārttikeya. The number of symbols found on the reverse is very much smaller than those on the obverse, and broadly speaking obverse symbols do not occur on reverses and vice versa. On the silver coins there is a complete absence of symbols common on the copper, cast or punch-marked, such as the swastika, the Ujjain symbol, the nandipada, and the hollow cross. The commonest symbols are the mountain symbol , three circles on a rod (not a caduceus), 'dog and hare' , bull, elephant, fishes in tank.

I cannot go into details here, but shall simply say that the great bulk of the punch-marked coins belong to classes 2 and 6 of the Museum Catalogue. The former are small pieces with a few but distinct reverse symbols and the latter are large pieces with many stamps on the reverse. These differences seemed at first to suggest widely different series, but the finds disprove this.

Our only clue to the chronology of the series lies in the finds. The find-spots of the recorded finds fall into well-marked groups. In the north-west we have Taxila, Peshawar, Thatta, Shahpur, and Kangra. In the Ganges valley we have Indor Khera, Padham, Paila, Etawa, Sankisa, Chiriyakot, Mirzapur, Ballia, Patna, Trogna, Belwa, Gaya, and Bhagalpur. In the west we have Palanpur, Tambavati Nagari, Jhalra Patan, Sarangpur, Besnagar, and Eran, all in northern Rajputana, Malwa and the upper regions of the Jumna. The Hinganghat, Karimnagar, and Bimlipatan finds belong to the basin of the Godavari. Coimbatore and Trichinopoli appear rather isolated in the south. This at first sight tells us little more than that the coins are found in what were in ancient times the most densely populated parts of India. When we examine the coins in the individual finds we are struck by the fact that the composition of the hoards is everywhere the same, and consist of British Museum Catalogue Classes 2 and 6. The finds which contain classes other than these contain coins of quite different classes and may be isolated for the present. As already mentioned, the constant association of these two apparently very different series is at first sight surprising. They are, however, found together from Taxila in the north to Karimnagar in the south, and from Palanpur in the west to Midnapur in the east. The distinction between them is not one of place and mint; they must

have been issued by the same authority at no great interval of time and have circulated together throughout the area where that authority prevailed. The similarity in constitution of the various hoards suggests that they were all buried about the same time. In other countries hoards are buried in troubled times, e.g. in England at the close of the Roman occupation and during the Civil War. The authority that issued these coins must have ruled the upper Indus Valley, the Ganges Valley, thrust its way up the Jumna and its tributaries to the west, come along the east coast through Orissa, and penetrated far into the Deccan. We may assume that these hoards were buried during the period of insecurity in which the authority that ruled this vast area lost its hold on it. All this points to the Maurya Empire which ruled the area in question and suddenly collapsed everywhere at the beginning of the second century B.C. Indeed, the above rough grouping of the find-spots agrees pretty well with the distribution of the Asoka inscriptions.

The analogy of hoards from other countries does not lead us to expect a hoard to contain coins covering centuries, and if most of our hoards were buried in the first quarter of the second century, the earliest coins are unlikely to be any older than the beginning of the third century. The Taxila Bhir Mound find contained classes 2 and 6, the bars already mentioned and tetradrachms of Alexander and Philip Aridaeus. The earliest date for its burial is the end of the fourth century, but the similarity of its main constituents to the usual finds of punch-marked coins suggests it should be dated later. At Taxila coins of class 2 were found with a stater of Diodotos, so they could not have been buried before 250 B.C. Punch-marked coins were found at Sirkap with copper of Taxila, which belong to about 200 B.C. Elsewhere at Taxila these coins were found in association with Greek and Saka coins of the second and first centuries B.C., so that they seem to have remained in circulation down to the Kushan period. A small find from Thatta in Kangra contained a drachm of Philoxenos of say 100 B.C. The Kangra find contained Antialcidas, Menander, and other Greek coins of the late second century.

At Pataliputra we find these coins associated with 'Mitra' and Kushan coins, and in the upper Ganges Valley at Padham and Sankisa they are found on sites which yield Kushan coins. These punch-marked coins therefore immediately preceded the Greek, Saka, and Kushan coins and probably continued in use, for the later Sakas struck little and the Kushans no silver. It is only in the north that we can expect to find foreign coins to assist in the dating of hoards: we have, however, a find from Coimbatore from one of a group of tumuli,

another of which yielded a denarius of Augustus, and at Kohlapur a find was associated with a ring with an inscription of the second century B.C.

The period of circulation of the bulk of the punch-marked coins may therefore be put at the third and second centuries B.C. They probably continued in circulation after this period, but there is no evidence that they are earlier. They were not issued over a great period of time or the hoards would differ very much more in composition, and the obverse types of the various groups are linked together in a way which shows they are more or less contemporary. The relative permanence of certain symbols and the frequency of change of the others also suggest a limited period for their issue. The great bulk of the punch-marked coins (classes 2 and 6 of the British Museum Catalogue) are the issues of one kingdom; the wide distribution of their find-spots and the evidence that their date is the third and second century B.C. point to the Maurya dynasty. Only a powerful central authority could have carried out such a complicated system of symbolism—no doubt quite simple if we had the clue—and ensured uniformity of weight. This again points to Candragupta Maurya, or Asoka. The regular occurrence of five symbols might suggest a board of five such as Megasthenes tells us was at the head of each department of Maurya administration; but the persistence of certain symbols compared with the frequent changes of others shows they cannot be the marks (*lakṣaṇas*) of a committee of five members of equal rank. The punches might rather represent the series of officials with a diminishing area of authority, the last symbol being that of the actual moneyer. If the well-known passage in the *Visuddhimagga* refers to this type of coin it suggests some such explanation of the symbols.

We have now to deal with a few finds of distinct types. One from Golakhpur (Patna) was published by Mr. Walsh. These are large broad pieces with the punches made separately and distinctly. They are all of the same type and the only link with the preceding classes is a form of the six-armed symbol. A large find from Paila in the Khera district consisted entirely of coins of a distinct type with rude and almost unrecognizable symbols, apparently four in number. A recent find at Set Mahet contained 500 coins, also of a distinct type. The find from the Madras Presidency described in Mr. Aravamuthan's paper in this volume (cf. pp. 393–400), also forms a distinct series. These finds, all consisting of one type not found elsewhere, are evidently the local issues of dynasties outside the Maurya territory or of a brief period of independence. The fact that they contain one

type only suggests that their period of issue was a short one. The uniformity of the constitution of the finds shows that the period of issue of punch-marked coins was not a long one, and further evidence that they were not firmly established is shown by the rapidity with which they were ousted by the new type of coin with types and inscriptions which came in under Greek influence. It may then be suggested that the idea of coinage came to India from Persia in the late fourth century B.C., and was inspired by the siglos, although its nature is characteristically Indian, for no better illustration could be found of the doctrine of the philosophers that beneath the apparent multiplicity there is unity. The original weight is 2/3 siglos or 1/3 of a Persic stater. That they remained in circulation for some time along with coins of 'Greek' type we know from the finds and from the name *purāṇa* ('the old coin'), which could only have been given when they were no longer being issued.

A NEW TYPE OF PUNCH-MARKED COIN

T. G. ARAVAMUTHAN

AT Śiṅgavaram, an obscure hamlet in the Nandigama taluk of the Krishna district of Madras Presidency, there has been found, buried in the earth, a hoard of silver coins which would seem to be attributable to the earliest known class of coins called the purāṇas. It is said that when one of the inhabitants of Śiṅgavaram was digging a trench in which to lay the foundations of a house he came across a pit, about a yard square and about a yard in depth, which he found full of silver blocks of various shapes, spiral coils of thick silver wire, and small silver coins, and also perhaps a few bits of gold, some of which were possibly coins. The silver finds are said to have been about 50,000 tolas[1] in weight, of which the coins were about 10,000 tolas and the other objects about 40,000 tolas. No portion of the finds has reached the Madras Government Museum, which is the local official institution dealing with treasure-trove, but a merchant of Madras who hails from the area in which Śiṅgavaram is situated brought me a very small fraction of the silver finds in November 1935, the find having apparently been made eighteen months earlier. All the objects—blocks, spiral rings, and coins—bore evidence of much corrosion and were much mixed with grime; a few of the larger pieces were mottled with veins of verdigris, while all the other objects were covered with a thick coating. The coins were all of silver and numbered about five hundred, but I was permitted to retain only a batch of twenty-five; of these three were specially chosen by me as they fell into a special class, and the remaining twenty-two were picked out so as to be fairly representative of the five hundred. I had time to do little more than clean the coins slightly, take casts of a few, and do tentative sketches of some of the symbols on them before the merchant took the coins back. This inadequacy of opportunity for a close study of even the twenty-five specimens is responsible not only for the smallness of the number of coins illustrated (Fig. 1) and the tentativeness of the sketches of the symbols (Fig. 2), but also for the halting character of some of the descriptions and conclusions. The rarity of this class of coins justifies this attempt at a discussion on the basis of the imperfect material I was able to gather, which is all, however, that may ever be available.

Among the larger pieces of silver examined by me are six square

[1] A tola = 180 grains.

blocks, each weighing about 15½ tolas and measuring about 2 inches square, though one or two of the corners of a few of them are found clipped; the blocks are flat on the under-side, while on the upper side they rise gradually from the thin edges till in the middle they reach a thickness of well over a third of an inch. Each block bears a 'taurine' symbol which stands out in well-marked relief on the upper surface; the symbol takes a peculiar shape, each of the two outer prongs of the taurus splitting into two at the tip. On one of these blocks a network of thin and shallow channels runs faintly round the taurine symbol, and raises a suspicion whether the lines are not the vestiges that indicate a legend running along the margins. While the uniformity in the weight of the blocks—ensured perhaps by the clipping of the corners—suggests that the blocks too were designed for use as currency, the absence of a symbol on the under-side casts a doubt on the suggestion. The blocks might be regarded as weights were it not that symbols are not borne on the under-side and were it not also that it is far from probable that so costly a metal as silver was used for such a plebeian purpose. The refusal to take the blocks for weights does not, however, imply that the weight to which they all apparently conform was not a well-defined standard; the uniformity cannot be without significance. A weight of about 15½ tolas was in all probability one of the standards well known at the time.

The spiral rings of silver are about an inch and a half in diameter and about 6 inches long and are of wire of the thickness of about a quarter of an inch. Probably uniform lengths of the wire were clipped off whenever necessary, hammered into flans and then struck into coins. This is perhaps as likely an explanation of the occurrence of these objects in this hoard as any other; it explains at least how the coins could be made to correspond roughly to one weight. Wire wound spirally is found occasionally in reliquaries deposited in Buddhist stupas: of silver, apparently, at Piprahwa,[1] and of gold, at Taxila.[2] A 'ring' from Bhattiprolu seems to be derivable from such a wire.[3] Deposits in stupas frequently include coins as well. The circumstance that the Śiṅgavaram find comprises coins and spirally wound wire raises, therefore, the question whether the find was originally a stupa deposit. The probabilities are against such a hypothesis, for we have no knowledge of so extensive a collection of coins having been found deposited in a stupa. In Egypt, Crete, and Central Europe we have 'closely coiled spirals', some of them at least asso-

[1] *J. of Royal Asiatic Soc.* 1898, p. 586, pl. facing p. 579.
[2] *Arch. Survey of India, Ann. Rep.* 1915–16, p. 6.
[3] A. Rea, *South Indian Buddhist Antiquities*, p. 13, pl. 6.

ciated with funerary remains, 'which look as if they were derived from the coiling of metal strips or wire'.[1] The significance of spirally wound wire as a symbol would, therefore, seem to deserve investigation.

The coins are thin pieces of silver and are of various shapes, including the circular and the oval; none of them measures more than

FIG. 1 (Nos. 1–7).

about an inch either way (see Fig. 1), and the weight of the coins varies, approximately, from 20 to 30 grains. They have a general resemblance, in shape, size, and thickness, to the punch-marked class of purāṇas, and they bear symbols closely akin to those on the punch-marked class, but, as will be shown below, they differ markedly in a number of important characteristics.

The symbols on these coins are struck in relief, each symbol standing out in relief in its own incuse. Generally the incuses are oval, but other shapes are not unknown. It is rarely that the incuse in these coins follows closely the outline of the symbol—a feature characteristic of the punch-marked class of purāṇas. Symbols are borne on only one side of the coins; the reverses bear none, unlike those of the other classes of the purāṇas. Four symbols are found invariably on the face, no more and no fewer; such numerical constancy is not found on the punch-marked class. Occasionally, symbols occur indeed on the reverses of a few of these coins, but the symbols being found to be four in number and to be identical with some of those on the obverses and being slightly blurred, it looks probable that what appears to be the reverse was originally the obverse, and that

[1] Hastings, ed., *Encyc. of Rel. and Ethics*, i. 842.

later, for some reason, the coins were re-struck with symbols on the present obverse, without, however, obliterating the original symbols. On some of the coins (Fig. 1, nos. 3–6) a symbol is found struck twice on the face: that this was no mere accident is clear from the frequency of the repetition; it is difficult, however, to say if both are impressions made by the same die. Many of the coins betray a slight tendency to

FIG. 2.

assume the concavity of a cup; no true punch-marked purāṇa has this shape.

The symbols have a general resemblance to those on the other purāṇas, and more especially to those on the punch-marked class, but there are considerable and well-marked deviations not only in the details of similar symbols but also in the assemblage of the details. A comparison of the accompanying sketches with those illustrating marks on the purāṇas is more illuminating than verbal descriptions and distinctions.

These are features which by themselves should be enough to mark these coins as of special interest. But the striking of the symbols on these coins shows features which invest them with still greater interest. The sketches in Fig. 3 will serve to clarify the points sought to be made below.

Three specimens, as I have already mentioned, fall into a class of their own. I did not find more of this species among the five hundred coins I inspected, but the examination having had to be a hurried one when none of the coins had been cleaned I cannot be positive that there could not have been more of them: still, I am confident that if any escaped me they could not have numbered more than one or two.

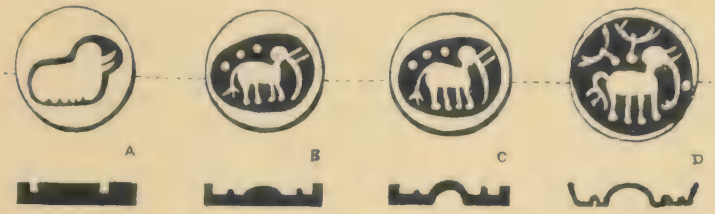


FIG. 3.

Every one of these three (Fig. 2, nos. 31–3, and Fig. 3, D) is circular, thinner than the rest, and much smaller, each being about half an inch in diameter. Each weighs approximately 15 grains, bears only one symbol which covers the entire face of the coin, and has a raised rim for edge all round, the piece assuming, in consequence, the shape of a shallow dish and the symbol appearing to lie in the trough of the dish. The symbol stands out in relief but in the manner of repoussé work. If the obverse presents the symbol in relief the reverse shows the metal raised so as to follow the relief closely all over: the convexities of the reverse follow the convexities of the obverse. In short, these specimens are perfect examples of the repoussé style.

The unusual style of these pieces has provoked the suggestion that they are not consistent seals, but in all probability they are really coins, being sub-multiples in value of the heavier pieces.

The special features observed on the Śiṅgavaram coins may therefore be said to be the repoussé effect, the cup-like shape, the absence of symbols on the reverse, and the nature of the symbols themselves.

The repoussé effect does not seem to have been so far noticed on the purāṇas, whether the effect be partial, as on the coins which on the reverse bear the deep impress of a plug, or full, as on the three silver pieces referred to above. The effect seems, however, to be fairly ancient on Indian coins; in the cabinets of the Madras Government Museum there are three specimens of the peculiar series called

'Korkey coins' (after the name of the find-place, near Cape Comorin),[1] on which practically the whole of the type—an elephant—is brought out in repoussé. Indian coins of much later times too being found with symbols, and even legends, in repoussé, it has to be recognized that this style of minting is both ancient and persistent in India.

The tendency towards the cup shape is not found in the purāṇas of the cast class and has not so far been recognized among those of the die-struck class. The cast coins are flat, the moulds having been designed for only that shape. The die-struck purāṇas we have been so far aware of are much thicker than the purāṇas of silver, being generally of copper, and the dies were large enough to cover a substantial portion of the flans. The thickness of the pieces and the size of the dies must have combined to keep the coin flat when struck. But the Śiṅgavaram coins are of thin sheets of silver, and not all the four dies with which each piece is struck suffice to cover the surface of the piece. The four dies being struck separately and successively on a piece while the rest of it remains free, the shock of the blow throws the free ends up and causes the piece to curl slightly. This phenomenon not being observable on the punch-marked purāṇas, an adequate explanation must be found. The force of the impact of a punch on a flan is felt only along the channel it serves to incise: a punch does not bite into the flan except where it outlines the symbol and it refrains from moulding the symbol into gradations of relief. On the die-struck purāṇas, however, a die not only forces the symbol into various planes of relief but also impresses an incuse which is often much larger than the symbol. The impact of the die on a flan having therefore to be much more forcible than that of a punch, a die-struck piece has a tendency to curl up which a punch-marked one does not betray. The closer a punch approaches a die in character the greater the pressure it brings to bear on that portion of the flan which it strikes and the stronger the tendency of the flan to get curved. If a few punch-marked purāṇas are cup-shaped it must be because they were minted with punches that were not so much punches as dies.[2]

The minting in repoussé, whether full or partial, makes it obvious that the coins were not intended to receive any symbols on the reverse. In this respect these coins are similar to cast and die-struck purāṇas from which the small reverse symbols are absent which are so characteristic a feature of the punch-marked class. If the symbols on

[1] Cf. E. Lowenthal, *The Coins of Tinnevelly*, 1888, p. 5, pl. 1, nos. 7–14.
[2] Cf. Mr. Durga Prasad in *J.A.S.B.* 1934, xxx, N. 11 and 13.

the reverses of punch-marked coins are the distinguishing marks of mint-masters or of moneyers or of inspectors of currency, as the various theories would have it, it is difficult to explain why those officers refrained from placing their marks on the other classes of purāṇas too. The Śiṅgavaram coins therefore reinforce the objections to the attribution of the reverse symbols of the punch-marked class to such functionaries.

The symbols are, as already pointed out, variations of those on the punch-marked purāṇas, departing in some instances so far from the prototypes as almost to justify hesitation in looking for the links of connexion. An equally important circumstance is that symbols such as those of the Sun, the 'Chaitya', and the Bull, quite common on the other purāṇas, are conspicuous by their absence on these. It is also significant that while no mythical or fabulous animal is found on the other purāṇas there is at least one symbol on some of these coins (Fig. 1, no. 7) representing a composite animal such as is known to mythology, a beast with a body resembling that of an elephant but with a head with a long beak from which spring forth innumerable bristles. The 'taurine' symbol has apparently a special vogue on these coins; we find a taurus within a frame, a taurus surrounded by circles and dots, another flanked on either side by a fish, others again surmounting animals (Fig. 2, nos. 27–32, 4–6), and, perhaps, four of them springing forth from a central disk (nos. 16–17). The symbol accords very closely in shape with those on the large blocks, even to the splitting into two of the tips of the outer prongs.

The Śiṅgavaram coins would thus seem to constitute a new species of purāṇas characterized by features to which parallels are hard to find.[1]

The influences under which this species had evolved are not easy to trace as the purāṇas have not yet been studied with the thoroughness necessary for the formulation of reliable conclusions. We are in no position to say from the special shape of the taurus, for instance, whether we have in it a clue to the age of the coins or whether it is a peculiarity due to developments in the area where the coins were discovered. The striking of the coins in repoussé, the peculiar shapes of some of the symbols, and the frequency with

[1] I had the privilege of showing the twenty-five coins to well-known numismatists, Rai Bahadur Prayag Dayal of Lucknow, Mr. Durga Prasad of Benares, Mr. K. P. Jayaswal and Rai Sahib Manoranjan Ghosh of Patna, and Dr. N. K. Bhattasali of Dacca, and all of them agreed that they were of a unique type. Mr. Jayaswal holds, Messrs. Durga Prasad and Manoranjan Ghosh concurring, that the absence on these coins of the mark of the moon over the mountain serves to date them as pre-Mauryan.

which the taurine symbol appears are among the features which might furnish valuable clues to the age of the Śiṅgavaram finds were the study of the purāṇas more advanced than it is now. The three types of dies used in striking these coins would appear *prima facie* to represent three successive stages in the development of this type of coinage—the first stage testified to by the single die, the second by the double die with the plug on the lower piece, and the third by the double die which produced the repoussé specimens—but as the three varieties of coins minted in the three different modes have the appearance of having suffered wear and tear in the same degree, it is difficult not to conclude that the three modes of minting were practised concurrently at Śiṅgavaram. The only conclusion with reference to the age of these coins which seems therefore justified by the facts so far known is the obvious one that these must belong approximately to the period when the other classes of purāṇas were current.

THE LAW OF TREASURE-TROVE IN INDIA AND THE PRACTICE IN DEALING WITH IT

SIR RICHARD BURN

THE method in which the East India Company dealt with cases of treasure-trove is described in Harington's *Analysis of the Bengal Laws and Regulations* (vol. iii, p. 764). At the outset, probably following the practice of Mughul governors, the company appears to have claimed everything found. As this led to oppression a proclamation was issued in 1777 declaring that, for the future, 'all treasure shall be the property of those who may discover it'. This sweeping renunciation of claims was modified later by a resolution that it should apply only to cases where the treasure found did not exceed a lakh of rupees. Hidden treasure which exceeded that amount should be at the disposal of government if no owner was ascertained. Inquiry was then made from the law officers of the Court of Sadr Diwani (or chief civil court) to ascertain the provisions of Muhammadan and Hindu law, and as their reports differed materially from each other it was decided to lay down uniform principles.

According to Hindu texts, as quoted by the Pandits, a learned Brahman who found a treasure was entitled to the whole. If the king himself discovered a treasure he should give half to the Brahmans and retain the rest. Opinions differed as to the rights of other finders. Manu and Yajnvalkya declared that the finder might keep one-sixth but must surrender the rest to the king. Gautama would give the whole to the king except a trifle to the finder. Vishnu would distinguish cases as the finder was a Kshattriya, a Vaishya, or a Sudra, making each of them surrender a stated portion both to the king and to the Brahmans. The Pandits thought that Manu's dictum should be followed.

The Muslim law officers drew a distinction between treasure which bore a distinctly Musalman impression, such as the Kalima, a verse from the Koran, or the name of a Muhammadan king, and treasure bearing other impressions such as the image of an idol, or the name of a non-Muslim king. Muslim treasure became the property of the finder if after he had advertised it properly no claimant proved a title to it. It was added that if the finder were a rich person he must bestow it in alms upon the poor, though the pauper recipients might be his parents, children, or wives.

Of non-Muslim treasure the king was entitled to a share of

one-fifth, and the finder to the remainder if the treasure was found on waste land. The authorities differed as to the rights of the finder when the find-spot lay in appropriated land, some giving the four-fifths not to him but to the person to whom that land was first granted after the subjugation of the country by the faithful, or to his heirs. But it was said to be the universally received opinion that when an existing proprietor laid claim to the trove, declaring that it was deposited by himself, his declaration was to be credited.

Regulation 5 of 1817 embodied in law the rules for dealing with cases. It applied to hidden treasure consisting of gold or silver coin, or bullion, or precious stones or other valuable property found buried in the earth or otherwise concealed, and it laid down a procedure of inquiry. A finder was required to notify his discovery within one month to the district or city judge, and to deposit the treasure in court. Failure to notify rendered him liable to lose his rights to it. The discovery was advertised and a period of six months allowed for claim. Any claim of title made was inquired into, and if no right was proved the finder received the whole treasure up to a value of one lakh, any excess going to government. An appeal lay from the judge's order to the provincial court. Revenue officers had to bring forward any claim of right which government might appear to possess.

Similar provisions were enacted for the Madras Presidency in 1832 and 1838, and were applied to territories acquired later, such as the Punjab, Oudh, the Central Provinces, and Burma. They remained in force till 1878, when Act 6 of that year replaced them. The reasons for new legislation are of interest. It was found very doubtful what law was actually in force in the Bombay Presidency outside the city. In the three Presidency towns of Madras, Bombay, and Calcutta it was not certain what law applied and it was thought probable that English law was in force there. The Regulation of 1817 had been found to give inducement to the finder to conceal or make away with his treasure. Sir Steuart Bayley when he introduced the Bill stated that in the last thirty years he had known no case in which government had benefited by a share, as no trove had been reported exceeding a lakh in value.

By the new Act which is still in force treasure is now defined as 'anything of any value hidden in the soil, or in anything affixed thereto'. A finder of treasure exceeding in amount or value ten rupees is required to give notice in writing to the collector of the district, showing the nature and amount or approximate value of the treasure, the place where it was found and the date of finding, and he either deposits the treasure in a government treasury or gives

security for its production when required. A notification is then published calling for claims on a date between four and six months later. Notice is also given to the person in possession of the place where the treasure was found, if he was not the finder.

If the collector sees reason to believe that the treasure was hidden within 100 years before the date of finding by a person who appears, or by some other under whom such person claims, he adjourns the inquiry to allow the claimant to establish his right in a civil court. Failing such a decision and where the treasure appears to be more than 100 years old the collector may declare the treasure 'ownerless', subject to an appeal by any aggrieved person to the Chief Controlling Revenue Authority. If there is a dispute as to the ownership of the land a period is allowed for decision by the civil court. When all these questions are decided the law provides that in the absence of any agreement to the contrary the finder takes three-fourths and the owner of the land one-fourth.

But when treasure has been declared 'ownerless' the collector may acquire all or any part of it on behalf of government, and in that case he values the amount to be acquired at a sum equal to the value of the materials of such treasure or portion together with one-fifth of such value.

This provision for acquisition by government at a price fixed by the intrinsic value of the treasure plus a definite percentage was explained by Sir S. Bayley as borrowed from a law in force in Denmark which had had the result of making the government collection of national antiquities in that country the finest then existing. It is gratifying to know that the working of Act 6 of 1878 has certainly improved the official collections of coins in India.

Penalties for failing to report finds have been made more severe, as a finder who does not give notice is liable not only to forfeit his share, but also to fine and imprisonment; and the owner of the place of finding, if he abets the finder, may also lose his share and be fined and imprisoned.

So far I have dealt with the rights of government, of the finder, and of the owner of land in which a treasure has been discovered. Members of this Congress will perhaps be more interested in the measures taken to advise government as to what specimens should be acquired by the collector on its behalf when the treasure consists of coins. In 1884 the Government of India issued a resolution to guide local governments in this matter, as the power of making rules under the Act of 1878 was vested in them. They were advised to frame rules directing that collectors should invariably acquire for government

all old coins not of British mintage. They were then to send the coins to the Asiatic Society of the Presidency in which the coins had been discovered, for report on the nature of the coins and their numismatic value. Specimens worth acquiring were to be given to certain public collections in a specified order and the rest sold at the mints. The instructions that all coins should be acquired was modified almost immediately and discretion was allowed, though in some provinces indiscriminate acquisition continued. It was reported that the Madras branch of the Royal Asiatic Society was practically defunct and coins found in that presidency were examined by the authorities of the Museum. Other variations were made from time to time in the arrangements for skilled examination which need not be detailed. In 1899 it became necessary to reconsider this matter in the United Provinces where coins had latterly been examined at the Lucknow Museum and the Government decided to appoint a small committee of persons interested in numismatics, one of whom acted as secretary and prepared a detailed report which was circulated to other members for their criticisms and also contained proposals in regard to the acquisition and distribution of specimens. At that time and almost continuously since then members were and have been available whose joint interests covered the entire field of coins found in the provinces.

In 1905 the Director-General of Archaeology, Mr. (now Sir) John Marshall, referred the whole question to the Government of India at the instance of the late Mr. Henry Cousens, who was in charge of the archaeological survey of western India. Mr. Cousens pointed out that though he was examining on behalf of the Bombay Branch of the Royal Asiatic Society and reporting on treasure-trove found in Bombay, the Poona Museum which was in his charge received no specimens as it was not on the list drawn up by the Government of India twenty years earlier. Inquiries showed that the Asiatic Society of Bengal was still responsible for examining coins from Bengal, Assam, Bihar, the Central Provinces, and the Punjab, while Dr. Stein examined those found in the North-West Frontier Province, and the arrangements in Madras, Bombay, and the United Provinces were as already described. It was also ascertained that the procedure in Bengal had not been satisfactory. Before Mr. Nelson Wright, secretary of this section of the congress, was appointed Honorary Numismatist to the Society in 1905, no detailed record of each find was maintained, though in the past scholars like Blochmann and Hoernle had published accounts of specially interesting discoveries. Some local governments were unable to say what had

become of treasure they had sent to Calcutta. The official attitude is sometimes sceptical about the value of such things. In 1891 a secretary to the Government of India wrote, in criticism of a proposal to purchase a celebrated collection:

> 'There is perhaps no very useful object gained in making a complete collection of coins any more than in making a complete collection of postage stamps. Every new coin found may be of historical use and interest, but known coins described already are of little use and cost a good deal. If required for comparison duplicate sets can be obtained at any time from the British Museum. It is doubtful therefore if any encouragement should be given to the purchase of known coins merely for the purpose of making a collection more perfect.'

I have heard a similar expression of belief by the author of a well-known book on the history of an Oriental country more recently, but I do not find it shared by the Keeper of the Coins in the British Museum or by his assistants. Fortunately it was not shared by the Government of India, which in 1907 issued general orders that still govern the main principles of dealing with treasure-trove.

In the first place they laid stress on the importance of recording the origin, surroundings, and exact nature of each find, pointing out that such a record might be of value for two reasons: it might throw light on the history of the place of discovery, or it might give a clue to the attribution and arrangement of different series of coins. To secure such records, the value of which increases with their number and accuracy, local governments were asked to communicate with the Director-General of Archaeology, who undertook to maintain a list of persons who were competent and willing to examine coins and prepare reports on them. At present every province and many of the larger states have been able to make satisfactory arrangements for examination, and I hope that records are being maintained. Rai Prayag Dayal Bahadur, Curator of the Lucknow Museum, who is secretary to the committee in the United Provinces, tells me that for the last thirty-six years they have detailed records filed in the Museum of 95,326 coins which have been received as treasure-trove. It not infrequently happens that finds are reported the intrinsic value of which is less than Rs. 10. In such cases the practice in the United Provinces is to offer the numismatic value, and many coins have been acquired in that way.

Arrangements for publication vary. Important finds are often described in detail in various journals, while annual notices are published in museum or archaeological reports, and the annual report of the archaeological survey of India includes a summary of

all such notices as are received by the department. Since 1931 a note on Indian numismatics has appeared in the *Annual Bibliography* published by the Kern Institute at Leyden.

After examination the question of the disposal of the coins arises, and in 1907 it was decided to alter the order in which collections had been arranged for the receipt of duplicates. First choice is given to the principal museum in the province in which a treasure has been found. It had been argued that the Indian Museum should come first, or that a rare coin should go to the museum nearest the place where it had been struck. But it was pointed out that local enthusiasm had made several provincial museums richer in various series than the Indian Museum and that students would be more likely to visit their own institution than Calcutta. And to the second argument it was replied that modern territorial divisions did not coincide with ancient kingdoms. The Indian Museum was therefore placed next after the provincial museum, and the remaining official museums in India, numbering about a dozen at that time, were ranged in order of the importance of their existing collections. After supplying specimens to all these, the British Museum was named, and then local museums in a province, maintained by universities or other non-official bodies. If coins of real numismatic value turn up in numbers more than sufficient to supply all institutions on the list the extra coins are also acquired and placed on sale at the Museum or at one of the mints in India. Such coins are advertised, and collectors may register their names to receive lists of them. After five years those remaining unsold are melted down.

One difficulty in distribution arose from the absence of catalogues, as it is unnecessary in many cases to send duplicates to a museum. That has been remedied by the publications of Dr. V. A. Smith, Mr. Nelson Wright, and Mr. Allan for the Indian Museum, of Mr. Whitehead for Lahore, of Mr. C. J. Brown, and Rai Prayag Dayal Bahadur for Lucknow, of Drs. Thurston and Henderson for Madras, Mr. C. S. Botham for Assam, and of Messrs. Singhal and Acharya for the Gujarat coins in the Prince of Wales Museum at Bombay. It is to be hoped that other museums will follow suit.

In this connexion it is fitting to refer to the stimulus to numismatic studies in India caused by the foundation of the Numismatic Society of India in 1910 through the energy of Mr. Nelson Wright. Its publication, the Numismatic Supplement to the *Journal of the Royal Asiatic Society of Bengal*, has spread an interest throughout the country which has shown itself in advancing knowledge and in the enrichment of public and private collections. We have seen and

heard much lately about Federation in India, and are waiting to see what is going to happen in the matter of administrative relations. The latest report I have received from Lucknow shows that in numismatics federal relations have already come into existence. As many as thirty-four darbars of Indian states have entered into exchange relations with the United Provinces and several more desire to obtain by exchange certain classes of coins. The omen seems favourable.

SOME NOTES ON BENGAL COINS

S. K. CHAKRABORTTY

I. METALLIC RATIOS OF THE BENGAL COINS IN THE FIFTH CENTURY A.D.

THE three metals used for coinage were gold, silver, and copper. An attempt will be made to determine their relative value in the light of the recently discovered epigraphic evidence.

The relative value of gold to silver in the Indian satrapy of the Persian Emperor Darius (521–485 B.C.) was 1 : 8,[1] while in Persia it was 1 : 13·3.[2] In the first quarter of the second century A.D. the ratio was 1 : 10,[3] as is evident from a consideration of the Nasik inscription of Ṛṣabhadatta of the year 42, month Vaiśākha, dated in the Kushana Era, i.e. 78+42 = A.D. 120. A clue to the determination of the later ratio of the precious metals, gold and silver, has been supplied by the discovery of an inscription at Baigram in the Bogra District of Bengal. It is a copper plate of the Gupta Era 128, and was edited for the *Epigraphia Indica* by Dr. R. G. Basak. It is of the time of Kumāragupta, whose dates, known from coins and inscriptions, range from 113 to 136 G.E. (A.D. 414–457.), and the inscription is actually dated in 128 G.E. (A.D. 448 or 449). It supplies us with the most important datum that eight Rūpakas were equal in *value* to a half-Dīnāra, i.e. one Dīnāra of gold was equal in value to 16 Rūpakas of silver. One Dīnāra weighed 126 grains of gold and a Rūpaka contained 36 grains of silver. So 126 grains of gold were equal in value to 576 grains of silver; consequently the ratio between gold and silver was 1 : 4·57. We can take actual specimens of coins instead of the theoretical weights of the Dīnāras and the Rūpakas. From the actual specimens of Kumāragupta's Dīnāras in Allan's *B.M. Catalogue* we find that no. 251, p. 85, is the heaviest without rings, and weighs 128·5 grains; and the heaviest Rūpaka in the same catalogue is no. 303, p. 95, which weighs 35·7 grains. The actual ratio from these data is 1 : 4·52, between gold and silver. We may therefore take it to be the ratio approximately, *without considering the percentage of alloy used*, which has not yet been definitely determined by chemical analysis. We do not know exactly what was the relative value of silver and copper, and consequently of gold and copper, in

[1] A. Cunningham, *Coins of Ancient India*, p. 5.

[2] *Cambridge History of India*, vol. i, p. 343.

[3] S. K. Chakrabortty, *A Study of Ancient Indian Numismatics*, pp. 83–5; E. J. Rapson, *B.M.C. Indian Coins* (*The Andhras*, &c.), pp. lviii and clxxxv.

the Gupta period. But we have sufficient data for a period a little later. Professor Bhandarkar points out that Bṛihaspati and Kātāyana Dharma Sūtras (6th century A.D.) establish the rate of exchange between the copper Kārshāpaṇa and gold Dīnāra as 48 to 1; and if we accept the copper Kārshāpaṇa and the gold Dīnāra as of 146·4 and 124 grains respectively, the ratio between gold and copper would be 1 : 56·7.[1] If this be the relative value of gold and copper about a century before under the Guptas, the ratio between silver and copper would be approximately 1 : 12·5. It is thus evident that silver had appreciated in terms of gold as compared with what it was in the time of the Kushanas. This might be the result of the paucity of the white metal or the abundance of the yellow one.

II. A COIN OF INDRA-MĀṆIKYA DEVA, KING OF TIPPERAH

Tipperah was a kingdom to the east of Bengal and was much bigger than the modern native state of Tipperah with an area of 4,116 square miles and a population of 2½ lakhs only. In the *History of Tipperah* (Rājamālā, by K. C. Siṅha), Indramāṇikya is numbered 128 in the list. He was the son of Mukundamāṇikya and usurped the throne of Jayamāṇikya (No. 127).

Description of the Coin. Silver, a quarter-Rupee. Size 0·66 inch; weight 39 grs. Date 1666 Śaka Era or 1744/1745 A.D.

Obv. Three-line legend in a square, the margin outside it occupied by decorative curves: (1) *Śrī Śrī yū* (2) *ṭa I* (3) *ndra Devaḥ*, with a dagger-like perpendicular stroke between *ṭa* and *I* in line 2—the name of the king Indra Deva with the honorific *Śrī* twice.

Rev. In a circle within a ring of raised dots, a grotesque lion standing left with off forefoot raised; two dots above the head perhaps representing the mane and a ⌣ sign above the back; below, between the forepaws, *Śaka*, between the hindpaws *16*, and between the upturned tail and hindmost paw *66*, i.e. Śaka Era 1666 = A.D. 1744/1745.

The dagger-like perpendicular stroke is surmised by Dr. Bhattashali to be the trident of Śiva and, if so, the king was evidently a Śaiva. The grotesque lion on the reverse is the emblem of the kings of Tipperah. The name is abbreviated to Indra Deva, as was usual in the case of quarter-rupees which are rather small in size (cf. Dr. Bhattashali, 238; 'Coins of Tipperah', Numismatic Supplement No. XXXVII, *J.A.S.B.* (New Series), vol. xix, 1923, No. 6); the coin is with the writer, who found it in Mymensingh District.

[1] D. R. Bhandarkar, *Ancient Indian Numismatics*, p. 189; S. K. Chakrabortty, *A Study of Ancient Indian Numismatics*, p. 87.

III. COINS OF SAMĀCHĀRA DEVA, A VASSAL OF ŚAŚĀṄKA, THE KING OF GAUḌA

References—*I.M.C.* vol. i (Smith), pp. 120, 122, Nos. 11 and 13 on Pl. XVI.

B.M. Cat. (Allan's *Gupta Dynasties*), pp. 149, 150, Nos. 4 and 5, Pl. XXIV.

B. & O. Res. Soc. Journal, vol. v, part i, March 1919, R. D. Banerjee, p. 82.

J.A.S.B., Num. Supp. Nos. XXXVII and XXXIX: N. K. Bhattashali, article nos. 239 and 249.

Two types: (*a*) the 'Rājalīlā' or 'Throned King', and (*b*) the 'Archer' Types. In the obverse of the *Rājalīlā* type Allan and Smith read the legend as *Yamadha* (?), of the Archer Type Smith read only one letter *cha*, and R. D. Banerjee suggested *Yaśā* or *Yaśo*. But the reading has been definitely determined by Dr. Bhattashali as *Samāchāra*, and this is supported by the discovery of the copper-plate inscription of Sāmāchāra Deva in 1909 at Ghugrāhāṭi in the Faridpur District of Bengal. The reverse legend on both the types was read as *Śrī Narendrāditya* by Allan; Smith accepted it only for Rājalīlā type, and in the 'Archer' Type reverse he suggested *Narendravinata*. It is this latter reading, viz. *Narendravinata*, that had been demonstrated by R. D. Banerjee (*A. R. Arch. Survey of India*, 1913–14, 260, Pl. LXIX) and accepted by Dr. Bhattashali for the legend on the reverse of both the types, and this is surely the correct one. The proper interpretation of this reverse legend supplies us with information about the political condition of Bengal in the first quarter of the seventh century A.D. and the relationship that subsisted between Samāchāra Deva and Śaśāṅka. The legend *Narendravinata* means 'fully subdued or obedient to Narendra', and evidently refers to the political status of Samāchāra, who was a vassal of Narendra. Now who is this Narendra? We know that Śaśāṅka in a manuscript of Harshacharita is referred to as Narendragupta.[1] On palaeographic as well as numismatic grounds the coins of Samāchāra must be deemed to be contemporaneous with those of Śaśāṅka; and if the interpretation of the reverse legend be correct the prevalent opinion that Samāchāra reigned in Gauḍa before Śaśāṅka must be given up; he was evidently a vassal of Śaśāṅka, and from the find-spots of his inscription and some of his coins we may reasonably infer that he was a king of Vaṅga-Samaṭata, i.e. East Bengal, and that the two other kings associated with him, Dharmāditya and Gopachandra,

[1] *Epigraphia Indica*, Dr. Bühler, vol. i, p. 70.

also belonged to this province and perhaps reigned before Samāchāra. Numismatic evidence therefore clearly proves the existence of an independent Kingdom of Vaṅga or East Bengal which was brought under his domination by Śaśāṅka who exercised imperial power as Gauḍādhipa 'at least up to the year A.D. 619.'[1]

IV. LATE IMITATION GUPTA COINS OF EAST BENGAL

B.M.C. Gupta Dynasties, J. Allan, p. 154, Nos. 620–22, Pl. XXIV, 17–19.
Num. Chronicle, Fifth Series, vol. xiv, J. Allan, 'Indian Coins acquired by Br. Museum'.
J.A.S.B., Num. Supp. Nos. XXXVII and XXXIX: N. K. Bahattashali, article nos. 239 and 249.

These coins, as pointed out by Allan (*B.M.C. Indian Coins* (*Guptas*), pp. cvi–vii), were actually in circulation in East Bengal in the seventh century A.D. Dr. Bhattashali at first attributed them to the later Guptas of Magadha. He, however, changed his opinion and assigned them 'to the line of Gauḍa kings to which Śaśāṅka belonged'. But we know that after Śaśāṅka his empire fell to pieces and it was Jayanāga who ascended the throne of Gauḍa. The chakra standard of Jayanāga led Bhattashali to infer that he belonged to a new line of kings who were Vaishnavas, while Śaśāṅka was a staunch Śaiva. In the imitation Gupta coins which are very rude and barbarous copies of the 'Archer' Type, we have on the reverse an eight-armed goddess with a long garland (perhaps of skulls as suggested by Bhattashali), evidently a Tantric goddess. East Bengal was a stronghold of Tantric religion, and the provenance of the coins indicates that these were issued by Śākta kings (worshippers of Śakti or Kāli) in East Bengal. Their affinity with the coins of Samāchāra Deva may lead us to infer that when the Empire of Śaśāṅka fell to pieces his vassal of East Bengal, perhaps a successor of Samāchāra, asserted his independence and to justify his claim to this high status performed an Aswamedha sacrifice. This is perhaps commemorated in some of the coins by putting in the figure of a horse below the left arm of the king on the obverse (*B.M.C.*, no. 620) whose name was read as *Sudhanyā*. The horse is not, however, found on all the coins of '*Śrī Sudhanyāditya*'—the reading of the legend as suggested by Bhattashali for coin no. 621 (*B.M.C.*, Allan, *Gupta Dynasties*). So Sudhanyāditya, who followed Samāchāra Deva on the throne of the East Bengal Kingdom of Vaṅga-Samaṭata, was the founder of an imperial dynasty, and he commemorated the performance of the

[1] R. G. Basak, *History of N.E. India*, p. 142.

horse-sacrifice by issuing a class of coins with the figure of a horse on the obverse. Here we have a new line of kings, and the only other one whose name has been deciphered by Mr. Allan is *Pṛthuvīra* (i.e. Pṛithuvīryya, *Num. Chron.*, 1934, p. 235—this is, however, *not* the first to bear the ruler's name as suggested). A comparison leaves no doubt that this coin, which is more rude in execution, was later than those of Sudhanyāditya. This is all the information we have about a line of kings in Vaṅga-Samaṭata in the first half of the seventh century A.D. and the main source is numismatic.

NOTES ON THE ACHAEMENID COINAGE AND SOME SASANIAN MINT-NAMES

E. HERZFELD

DURING the excavations of the *apadāna* of Darius at Persepolis, in 1934, the foundation documents were discovered, *in situ* and untouched, in two hermetically closed stone boxes. Each box contained one gold and one silver tablet, almost 12 inches square. The main passage of their inscriptions—which are the same as those of the gold and silver tablets of Agbatana—in mentioning the farthest points to which the Empire extended, furnishes a date: 'from the Sakā [Scythians] that are beyond Sughd [Samarqand, NE.], as far as Kūsh [Aethiopia, SW.], and from Sind [SE.] as far as Sardis [near Smyrna, NW.]'. The lands of the Sakā and Sardis were already added to the Empire by Cyrus, Aethiopia by Cambyses; but Sind was a new conquest made by Darius in about 519/8, and is not yet mentioned in his first inscription at Bīstūn in 520 B.C.—518 is a *terminus post quem* for our tablets. On the other hand, since Sardis is given as the extreme north-west point, the tablets must be previous to the conquests in the Balkans, the campaign against the European Scythians. All the later inscriptions of Darius mention the Thracians under the name *Skudra*, the Macedonians as *Yaunā takabarā*, and the Scythians as *Sakā paradraya* 'beyond the (Black) Sea'. This well-known expedition is not exactly dated. According to the Bīstūn inscription it must have taken place after the fifth year of Darius, after 518/7, and according to Greek sources certainly before the year 514. The foundation documents, hence, were deposited between 517 and 514, for which we may say in 516 B.C. Six years seems almost too short a time for the cutting of the rock, the filling up and finishing of the whole terrace so far as to start the first structure upon it.

Under the stone boxes coins of gold and silver (see Figs. A and B) were found, deposited in fours, together with each of the pairs of tablets. The number four seems to have had a magic significance. To bury small objects of various descriptions together with documents in the foundations of important buildings is an old inherited custom.[1] Other foundation documents of stone we have found embedded in a layer of sulphur and brown powder, probably of decayed fragrant wood; at another place a brick-shaped piece of asphalt was put into

[1] Cf. V. Place, *Ninive et l'Assyrie*, vol. i, p. 191; W. Andrae in *Mitt. D.O.G.* liv (1914), pp. 23 ff. and 36 f.; lxxiii (1935), p. 8 f.

the foundations. These materials apparently were believed to protect against evil powers. According to Babylonian belief, gold was the product of Arallu, the mountain in the Nether World, and to put money into the foundations—as far as I know the oldest instance of that still living custom—looks like a sacrifice to the Nether World, or giving to Hell what belongs to it.

Fig. A.

The gold coins (Fig. A) are all of one and the same type, the well-known Croesus coins with heads of lion and bull opposed on the obverse, and incuses on the reverse. They all belong to the lighter series and weigh exactly 8·08 grammes, four coins together always 32·310 gr.

Fig. B.

The silver coins are of Greek cities, among them, for example, staters of Aegina, Abdera, and Salamis and Soli in Cyprus (Fig. B), which information I owe to Mr. Robinson. I am unable to judge the importance of the dating of these coins for Greek numismatics, but exactly dated coins of that period seem to be rare. Nor am I able to judge the significance for the origin of Iranian coinage of the fact that all the gold coins belong to the light series. What I know is that Croesus coins—and equally gold *dareikoi*—are exceedingly rare in Iran, much rarer than in Babylonia or the West. And the only other

Croesus coin which I have observed in long years, also of the light series, came from Hamadan-Agbatana and was probably found together with another foundation document of Darius. Either the Persians used, till 516, the Croesus coinage in their country, or the light series was coined somewhere in the Persian Empire before the coins of slightly higher weight and with the stereotyped archer on the obverse were introduced. The change must have taken place, in any case, shortly after the date of our deposit, when Darius completed the organization of his newly established empire.

In both cases the Persian coinage is based on that of Lydia, and with the Lydian coinage a technical term has been introduced. In an inscription on a set of silver dishes, the first OP. inscription known of Artaxerxes I, these dishes are described as *bātugara saiʸmam*. The inscription is written in the degenerate language we know from the inscriptions of Artaxerxes II and III—*bātugara* is a compound of OP. **bāta* 'wine', a word of which a derivation occurs in Athenaeus: *βατιάκη* = *φιάλη*, with **gār-* Lat. *libare*. The large silver dishes, 11 inches in diameter and shaped like a soup-plate, were thus used for libations. Their material is silver and is called *saiʸma-*. This word can be nothing but Gr. *ἄσημος* 'without a *σῆμα*, uncoined, bullion'. But, strangely, this word appears without the initial *α privativum*. Later on the Iranian dialects lose all initial short *a*'s, but not as early as Artaxerxes I. If the word came together with the coinage from Lydia, an explanation is possible: to drop optionally the initial *α* of Greek names and words is a peculiarity of the indigenous dialects of western Asia Minor.[1] *Saima-* seems to have passed into Old Persian not directly from the Greek, but through Lydian, in the shape, or in both the shapes it had assumed in that language. From OP. *saima* was borrowed Syr. *sēmā*, again without the initial *a*, for the dropping of which the Semitic languages offer no explanation. Later Aramaic has *asēmōn* directly from the Greek noun. In the West, Gr. *ἄσημον* assumed the meaning 'silver' at the time of the Roman Empire. Likewise, during the Arsacid period MP. *asēm*, *sēm*, NP. *sīm* replaced the genuine word for silver *'rzátam*.

The correlated notion of 'coined metal' is Gr. *δραχμή*. The formation either of an adj. in *-ma-* or a subst. in *-man-*, nom. *-mā*, is regular in Old Iranian, e.g. *daχma-* 'tomb' from √**dak-* 'to burn', *haχman-* 'community, fellowship' from √**hak-*, Lat. *sequi*, or *taχman-* 'course', *taχma-* 'quick, courageous' from √**tak-* 'to run'; but the comp.

[1] Initial *a* is dropped also in the indigenous dialects of Subartu-Mesopotamia, cf. examples in D. Opitz, *Zeitschr. f. Assyr.*, N.F., iii, pp. 299 ff., and A. Ungnad, *Subartu*, p. 122, note i, e.g. *Ašimanum* beside *Šimanum*.

tanšyah- and the superl. *tančista-* show that *taχma-* is based on the nasalized stem **tank-* of the root **tak-*. Likewise **draχma-* is based on **drang-* 'firmare', nasalized stem of √**drag-*. The PPP. *draχta-* means *firmatus*, the compound *handraχta-* lit. *confirmatus*, then *firmamentum* in Awestic. In OP. the pres.-stem **drng-* is represented by the noun *handungā* for **handrnga*, meaning a document confirmed, a *testamentum*. In MP. we have the common Manichaean phrase *bōχt ut andraχt* 'redeemed and confirmed', that means 'sealed, stamped, σφραγιστός', used e.g. in the Acts of St. Thomas as equivalent to MP. *andraχt*. **draχma-* therefore is exactly 'stamped, coined, impressed with a sign'. It is the opposite to *saima–ἄσημος*.

This word later on entirely superseded the native word for silver, Aw. *'rzátam*, OP. *'rδatam*, Lat. *argentum*. Only in Yazd, a central Persian town with a large Pārsī population, where a Median dialect is spoken, we find in the word *ālī* 'money' a survival of Aw. *'rzátam*. In the tomb inscription of Darius the word *ārštīka* 'the lancer' occurs, an adjective formed with *vrddhi* and the suffix *-ika* from *'ršti-* 'lance'. This word explains Yazdi *ālī*. Its long *ā* is *vrddhi*, the final *-ī* is all that remains of the ending *-īka*, and the *l*, a sound non-existing in Old Iranian, originates from OMed. *rz*, OP. *rδ*. The words for metals possessed a short form in *-i* beside their full form; thus *'rzátam* presupposes a short form **'rzi-* 'silver', which, after the analogy of *'ršti-ārštīka*, gives OMed. **ārzīka*>NMed. *ālī* '*argenteus*, *argent*, money'.

This leads us straight to the true explanation of the much-discussed word δαρεῖκος (with long *ā*). 'Gold' is OP. *δar^{a}nya-*, Med. *zaranya-*, Skt. *hiránya-*; the short form is Aw. *zari*, presupposing OP. **δari*, and, as we have *'rzi*: **ārzīka*, we must postulate **δari*: **δārīka* '*aureus*'. The Greeks of course saw in δαρεῖκος a sort of Louis d'Or or Napoléon, but the similarity between the name of the king and that of the coin is merely accidental. We may once for all dispense with that etymology. The word, with its initial δ, is Old Persian, not Median, and we may take the Greek opinion as one proof more that it was Darius who reformed the Iranian coinage.

To these remarks on OP. coinage I want to add a few more on a difficult, but historically important problem of Sasanian coinage, that of the names of the mint-towns. During the last twelve years I have brought together a small collection of Sasanian *bullae*, first from Irāq, later also from Iran. Only during the very last years such *bullae* have been found in the excavations of the Metropolitan Museum in Old Shiraz. They are small round pieces of fine clay, sometimes a special black sealing earth, and were originally attached by a string to documents of parchment, or similar perishable material. They bear

two or three types of seal impressions: (1) the seal of the owner of the document, in the usual style of Sasanian seals, with a design and often with the name inscribed around it; (2) one or more small seals of witnesses, of the same, but usually very simple style; and (3) the new and important fact: an official seal of some authority. With exception of the large seals of the highest officials of the Empire—a few impressions of them have been found in Shīrāz—these official seals never bear a personal name, and never have any kind of design, but merely a long legend, arranged in from one to three horizontal lines encircled by a longer inscription. I know, on the other hand, of no certain

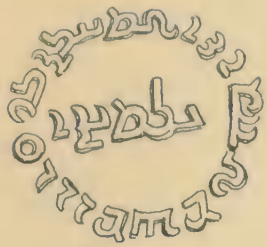


FIG. 1.

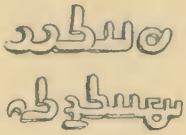


FIG. 2.

example of a private seal of that type, inscription only without design. Already the discovery of the first of these *bullae*, in 1923 in Sarpul, allowed us to recognize their official character and to group under that category the very rare originals that exist: three in the British Museum, one in the Louvre, one in the Pierpont Morgan collection, one recently purchased from Teheran by the Calcutta Museum, one quite recently by the Metropolitan Museum, and one in my own collection.

Some of these seals give only a local name, but usually the name of an office beside that of a town. In most cases it is the office of the *mōbeδ*, the *qāḍī*; rarer is the office of the *amārkare*, e.g. of Garamaea (Mosul-Assyria) (Fig. 1) or of Fārs (Fig. 2), the chief of the financial administration, called to-day *re'īs i māliyya*; sometimes we find the *andarzbeδ*, e.g. of Ardašīr-χurrah, which might be the modern *re'īs i ma'ārif*, the administrator of education, or a kind of lower degree of a 'Privy Council'. Of *X*usrōy-šāδ-Kavāδ we have also the *yātakgow dāδwar* (Fig. 3) 'solicitor-judge', and on some *bullae* from Old Shiraz the *yātakgow dātwar ē drigōšān* 'the solicitor-judge of the poor'. That discovery is most interesting, although it may have been a disappointment to the excavators to realize that they had come to the poor-house for excavating. The rarest pieces, viz. the original in the Louvre (Fig. 4) and a *bulla* in the future Teheran Museum (?), have perhaps the *barīδ*, Arab. *barīd*, the 'post-office'.

The localities of the *bullae* excavated in Old Shiraz naturally centre

around that town. They contain the name of the province *Pārs*, of the provincial capital *Ardašīr-Xurrah* (Fig. 5), and of *Shīrāz* itself, a town that the Arab geographers erroneously call a new foundation of the early Muhammadan period. Moreover, there is *Istakhr*, capital of the province and mint-town during the Arsacid period, and capital

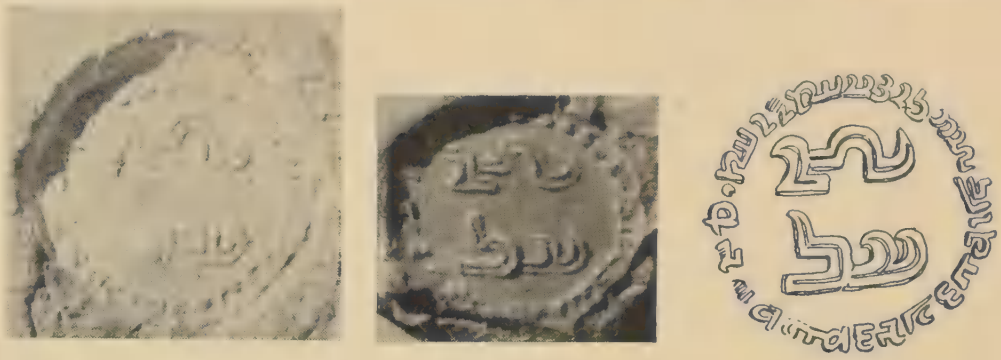


FIG. 3.

FIG. 4.

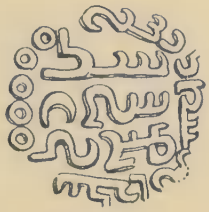


FIG. 5.

FIG. 6.

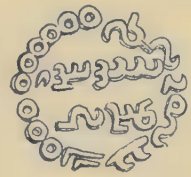


FIG. 7.

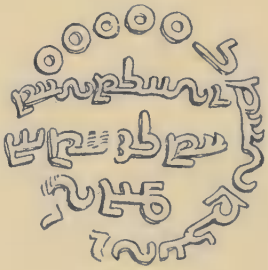


FIG. 8.

of a district under the Sasanians; and also *Bīšāpūr* (Fig. 6), district and town half-way between Shiraz and the coast, founded by Shāpūr I and famous for its rock-sculptures. Further, an unknown place *Sīdāke*(?) (Fig. 7) in the same district; *vēh-Artaχšaθr šahristān* (Fig. 8) is more probably Bardasīr or Guwāshir, capital of Kirmān, than Bahurasīr, i.e. Ctesiphon under one of its many names. Lastly we have *Dēde ē nōke*, i.e. Diz i nō 'the New Castle' in the province of Kirmān, no doubt one of the three castles of that town called 'Qal'a i kuhna, the Old Castle', in the Saljūq period.

The first specimens of my collection were mixed up with hellenistic *bullae* from Warka, with the Greek legend χρεοφυλακικοῦ Ὀρχῶν

(Figs. 8a, 8b).[1] But the MP. legend of the *bullae* was mostly *Xusrōy-šāδ-Kavāδ*, according to the 'Book on Taxes' of Ibn Khurdādhbih and of Qudāma the official name of a district, not in southern 'Irāq, but east

FIG. 8a.

FIG. 8b.

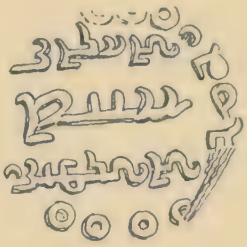


FIG. 9.

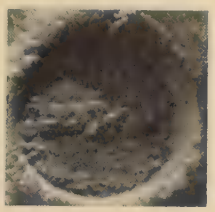


FIG. 10.

of the Tigris. Therefore I doubted the indications of the dealers, and subsequent inquiries revealed that the *bullae* came indeed from a place east of the Tigris, called Tell Ṣafwat or Imām abu'l-'Arūj, near *Khafāja*. I know at present the following places:

I. 'IRĀQ: 1. District *Xusrōy-šāδ-Ohrmizd šahr* (Figs. 9 and 10), i.e. 'town, city' or Arab. *al-madīna al-'atīqa*, the 'Old Town', Ctesiphon.

[1] Similar *bullae* from Warka in *Mitt. D.O.G.* lxvi (1928), abb. 5 below; Delaporte, *Cat. du Louvre*, acq. 812; Dareste, *Bull. Corr. Hell.* vi, 1882, p. 41; Haussoulier, *Nouv. rev. hist. de Droit*, 1923, p. 518, n. 1: cf. *Journ. Hell. St.* xliii, 1923, p. 55; Cumont, *Fouilles de Dura-Europus, 1922–3*, pp. 281, 487; A. Clay, *Bab. Rec. libr. Pierpont Morgan*, 1923, p. 54 and pl. vi.

2. *KVLT* a town in the same district (Fig. 11).
3. District *Xusrōy-šāδ-Kavāδ* (Fig. 3), the capital of which was Dastakirt, east of Baghdad near the Diyala river.
4. In the same district the town *Gargarā* (Fig. 12), Arab. Jarjarāyā, said to belong to the neighbouring district al-Nahrawān, called after the famous canal.

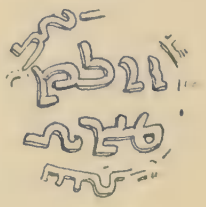


FIG. 11.

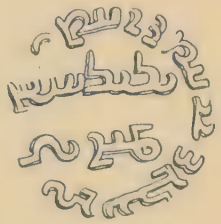


FIG. 12.

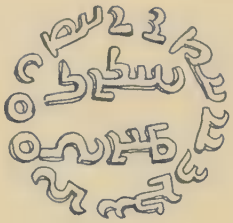


FIG. 13.

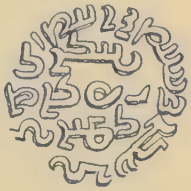


FIG. 14.

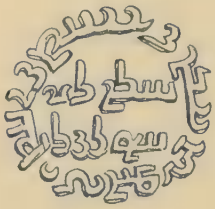


FIG. 15.

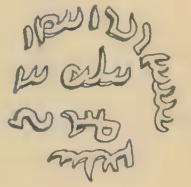


FIG. 16.

5. *Gālūl* (Fig. 13), with the two divisions 'upper' and 'lower' (Figs. 14 and 15), Arab. Ribāṭ Jalūlā, mod. Qyzribāṭ.

So far the indications of the *bullae* prove the description of Ibn Khurdādhbih to be better than that of Qudāma.

II. MŌSUL: 1. *garamīk u nōδ-artaχšīrān dar-amārkare* (Fig. 1) 'the accountant of the Sublime Porte of Garamaea and Mosul', the original in the British Museum.

III. MĒŠŪN—*Messene* (province of mod. Baṣrah). *mēšūn amārkare* 'the accountant of Messene', original in the Metropolitan Museum. The large seal of a *mōbeδ* of Messene is in the K. Friedrich Museum in Berlin.

IV. KHŪZISTĀN: the province on the Iranian side of the Shaṭṭ al-ʿarab: 1. district *Ērān-āsān-kirkavāδ*, capital Karkhā dhe Lādhan, on the bank of the Karkhā north of Susa, ruins: Ewān i Karkh.

2. In the same district a town the name of which may be read *Arrajān* or *(H)alpān* (Fig. 16), the last for mod. Hulwān; the polyphony of the script makes the deciphering difficult and sometimes impossible. The *bullae* were found in the neighbourhood of Harsīn, south of Kirmānshāhān, the market-place of the

Luristān bronzes, and show that the whole of Luristān was under the administration of mod. Khūzistān.

3. An unknown town of the name of *Kayīn*, *Kēn* (Fig. 17) or similar, of the same district, original in the British Museum.

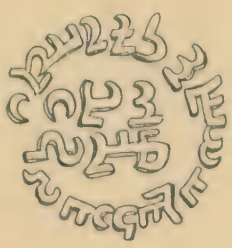


FIG. 17.

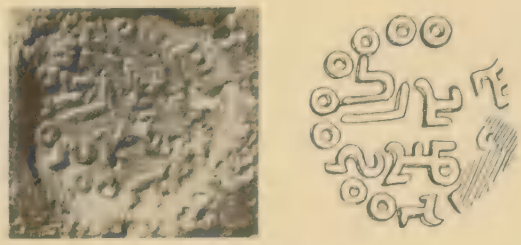


FIG. 18.

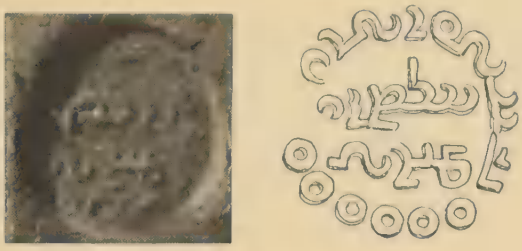


FIG. 19.

FIG. 20.

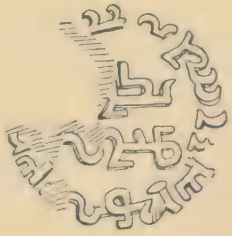


FIG. 21.

V. FĀRS: The districts and towns already mentioned. Besides:

1. *Gavar*, *Gōr* (Fig. 18), the name, believed to be modern, but in fact pre-Sasanian, Ptolemy's *Γάβρα*, of the capital of the province, later Fīrūzābād.
2. *Sartak* (Fig. 19), unknown, but perhaps one of the '*sard-sīr*' or 'cold regions' of Fārs; original in the Pierpont Morgan collection.

VI. KIRMĀN: *Vēh-Ardašīr* (Fig. 8) and *Diz i nō*, already mentioned.

VII. MEDIA, *Māh*. 1. District *Ahmaδān kōst ē šahristān* (Fig. 20), Hamadan city; the word *šahristān* designates the capital towns and corresponds to Arab. *madīna*, lit. seat of tribunal.

2. In the same district a place called *Zaran*[*d*] or *Zaran*[*g*] (Fig. 21).

3. *(h)ask^{ē}/īn rōδ* (Figs. 22 and 23), a place called after a river, situated in Ahmaδān city; to be studied.
4. *Mād*, district *Nihāwand* (Fig. 24), also *Nihāwand city* (Fig. 25).

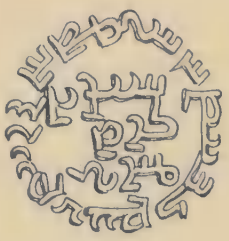


FIG. 22.

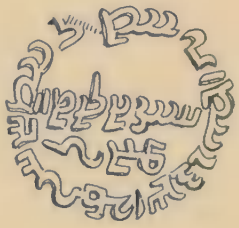


FIG. 23.

FIG. 24.

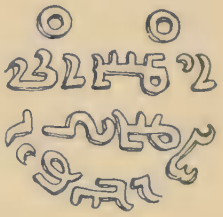


FIG. 25.

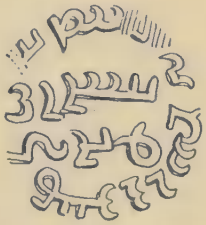


FIG. 26.

FIG. 27.

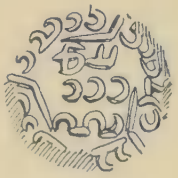


FIG. 28.

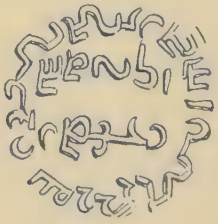


FIG. 29.

FIG. 30.

5. *Mād*, district [*Va*]*stān* or [*Ba*]*stān* (Fig. 26), which I first thought to be the region of the Ṭāq i Bustān, an inexact rendering of the true name *Vastān*; but, as the name of the town might be read *Ušnōy*, the district was perhaps part of Ādharbāijān.
6. *Isfahān* (Fig. 4) on the Paris seal: *Spahān barīδ* (?) 'Isfahan, post'.

VIII. AMUL; *Āmul šahr* (Fig. 27), capital of Gīlān at the shore of the Caspian Sea.

Figs. 28–30 give three more specimens, with doubtful readings.

In view of the scantiness of our knowledge of Sasanian administration, this material, which will probably soon increase, is of great value. The *bullae* were attached to copies of juridical documents kept in what is called in Hellenistic Babylonia χρεοφυλάκιον or Aram. *b^h^ēt^h^ qīshā*; the Iranian expression may have been *ganzaka* or *anbār*. Such institutions existed only in the capital towns of the provinces and subdistricts, the centres of administration. And it is that official character which connects the *bullae* with the problem of the Sasanian mint-towns. The mints, too, were in the same centres of administration.

Therefore the observation of an otherwise insignificant detail is important: on a number of the *bullae* the same name is written in the middle of the seal in an abbreviated form, and in the marginal legend in its full form. We have e.g. *BYŠ* (Fig. 6) for *Bīšahpuhr*, *XVS* (Fig. 10) for *Xusrōy-šāδ-Ohrmizd*, *XVSR* (Fig. 3) for *Xusrōy-šāδ-Kavāδ*, *'RT* for *Artaχšaθr-χvarrah*, and *AMV* (Fig. 27), with only one letter missing, for *Āmul*. Without this proof of the official use of such abbreviations, the explanation of some isolated letters on coins as abbreviations of place-names might seem arbitrary and objectionable. The earliest examples are *VR* for *Vrkāna*-Hyrcania on the aurei of Vaχšuvarya, and in the south *PR BR*, i.e. *Pārsa-BIRTA*, ideographical writing for *Pārsa-Staxra*, for Istaχr, on early Stakhrian coins of the *frātadāra*.

Somewhat later, on coins of the Arsacid Artabān I, we find ΤΑΜ for *Τάμβραξ*, *Tabarak*, in Tabaristān, near Rhages, ΝΙ, ΝΙCA, ΝΙCAK, ΝΙCAΙA for the capital of the empire at that period, also CYΛΣ or similar, probably for *Σύριγξ—Sarakhs*, and ΑΠΑ, ΕΠΑ for *Aparšahr*, later Nīshāpūr; all these mint-towns are in the province of modern Khorāsān, to which the empire was then limited. Similarly, the first Aramaic names of kings on Arsacid coins are abbreviated, e.g. *'R* for Artabān II, formerly counted as III, or *VL* for Volagases, *'R* for Artavazd, the last king.

The method of determining the mint-names on Sasanian coins, which with a few exceptions on aurei from Marw do not appear before the end of the fourth century under Varhrān IV, can only be: first, to draw up a list of the mint-names on the early Muhammadan coins previous to the reform of ʿAbd al-Malik, which imitate and continue the Sasanian coinage, and were made in the old mints, and likewise of the Umayyad coins, on which the same mint-names are written in Arabic script. The second task is to classify the abbreviations on the Sasanian coins under the headings of the full names found on the Muhammadan coins. As many varieties as possible—most of them

are due to bad writing—must be put under one heading. And it is here that the names on the *bullae* come into account. For the further study the early Arab geographers must be used and the only geographical treatise of the Sasanian period, the *Šahrhā ē Ērān* 'the Lands of Eran'.

But we need a criterion for the value of those literary sources, and a word about the amusing history of the *pahlavī* book may be to the point. In a measure not yet realized, it is the source of many or most of the notices concerning Sasanian topography in early Arab literature. *Šahrhā ē Ērān* means '*Lands* of Iran', but the little pamphlet deals only with the *towns*. In its present shape it has been retouched after the foundation of Baghdad. The date of the original treatise follows from a paragraph on the town Kirmānshāhān, which must be reconstructed thus: 'Kirmānšāhān was founded by [Varhrān IV] Kirmānšāh, and has been rebuilt by [Kavāδ ē] Pērōčān [i.e. son of Pērōč].' The second king is the father of Khusrōy I and ruled about A.D. 500.

The Great *Bundahishn*, a work which I consider as composed in the ninth century A.D., quotes, in the chapter on the 'Qualities of the Mountains', as its source the 'Memoirs of the Lands of Ērān', and from internal evidence this book was also the source for the chapters on the 'Qualities of Rivers, Seas', &c. The mention, there, of the mountain Behistūn 'near Kirmānšāhān' gives a clue to and confirms the date of the book. The original work was more than the list of towns, which is the only chapter preserved as an independent pamphlet.

Now, the abridged geography of Ibn al-Faqīh, and, a little more explicitly, the unpublished original manuscript of the Mosque of Mashhad, my photographs of which are kept in the Berlin Staatsbibliothek, tells on the authority of Hishām b. al-Kalbī, the earliest and best Arab chronicler, that when the General Qutaiba b. Muslim defeated Pērōz, son of the last Sasanian king Yazdagird, a Princess Šā was taken prisoner. The princess later on married the Khalif al-Walīd and became the mother of the Khalif Yazīd, hence everything had a happy end. But, at the beginning, the general had seized one of the trunks of the princess, in which was found a suspicious looking book that happened to be the Baedeker of the princess. A high official of the treasury, a Persian called Zādhānfarrukh of Kaskar, translated it for the governor Ḥajjāj, and from his translation Ibn al-Kalbī quoted the entire introduction, which Ibn al-Faqīh has preserved. According to this introduction, the book was written for the king Kavāδ, who wanted to make sure of the best place in Iran for the building of a new residence. That is the reason why the Iranian lands are classified

according to their 'qualities', as the *Bundahishn* puts it. But it is a strange sort of 'geographical character-picture'. The lands are classified as coldest, hottest, dryest, unhealthiest, most trying climates, &c., or the inhabitants as the meanest, most stupid, most avaricious, most jealous, the greatest liars, the most frivolous. There is not one good quality in the whole book. The translation of Zādhānfarrukh became, through Hishām, one of the main sources for all that the early Arabs know about the topography of Sasanian Iran.

Thus knowing and being able to criticize the available material, we may undertake to establish which places are really meant by the abbreviations on the Sasanian coins, and the general result is what must be expected *a priori*: as a general rule, the mints have not changed. There are some Umayyad mints which cannot yet be discovered on the Sasanian coins, and there are some Sasanian abbreviations which we cannot identify with the Umayyad mints. But that is mainly due to gaps in our present knowledge.

We have, for example, in

I. *'Irāq*: *Ctesiphon* under the ideographic writing *dar* 'the Sublime Porte', possibly also under the late Sasanian name *Andēw-Xusrōy*, *Αντιοχεῖα Χοσρόου*, as the new town built by Khusrōy I after the conquest of Antioch was called. We have the district capitals *Vēh-Kavāδ*, Arab. Bihqubādh, and *Pērōz-Šahpuhr*, Arab. al-Anbār, situated where the Euphrates enters the alluvial plain.

II. *Mōṣul* appears as *ND*, i.e. *Nōδ-Ardašir*[*akān*], Armen. Norširakan

III. *Mēšūn*, *Messene*, Arab. Maisān occurs as *MY*, *MŠ*, &c., and its main port, modern Baṣra, older Furāt al-Baṣra, or Furāt-Maisān, abbreviated as *PR* (for *FR*).

IV. *Khūzistān*: the capital *Xūzistān-vāčār*, Arab. Sūq al-Ahwāz, the 'Market of the Khūzī's' under that name as well as under the official name *Ohrmizd-Ardašīr*. Possibly the famous university town of Gundē-Šābūr, Sas. *Vēh-Andēw-Šāhpuhr*, 'Good-Antioch of Shāpūr'. Modern Rāmuz, old *Rām-Ohrmizd-Ardašīr* appears as *R'M* or *R'M-'*. The old town Susa under its official name *Ērān-Xurrah-Šāhpuhr*, sometimes as *'Y*, sometimes as *Ērān*. Also *Nahr-Tīrē*, a town preserving the name of Tiraios, king of Elymais, and probably already the mint-town of Elymais.

V. *Fārs*: We have the name of the province *P'*, i.e. Fārs, and that of the capital *Ardašīr-Xurrah* as *'RT*. Further *Istakhr* and, in the south, *Dārābgird*, the last one of the rare cases of a name written in full. Finally *Bīšāpūr*, the residence of Shāpūr I.

VI. *Kirmān* is represented by *KR*, and perhaps also as *Vēh-Ardašīr* Arab. Bardasīr, NP. Guwāshīr.

VII. In *Media* there is *Ahmaδān*; *Ganjak-Čēz*, the place of the great fire-temple of Ādharbāijān, situated south-west of Tabrīz; *Rhages-Ray* near Teherān, also under the shape of *Dīnār*, according to Yāqūt a quarter of the town, apparently that in which the mint stood; further *Nihāwand* and lastly *Isfahān*; that means all the capitals of the five subdivisions of that vast province.

VIII. *Tabaristān*: capital *Āmul*.

IX. In the East, *Khorāsān*, we find the Arsacidan and Sasanian capital *Nīšahpūr* as *NYŠP*, &c., and under the old name *Aparšahr*. Also *Herāt* and, rarely, *Balkh*; on a few occasions *Marw* appears under that name or under its surname *šāhīgān* 'the royal', that means under the immediate administration of the crown, just as *vāspuhrakān* means under the administration of the crown prince, the *vāspuhr*.

X. In the west is *Arminiyya*.

A closer study will reveal more places, and ought to indicate especially which mints were actually working at various periods. The usurper Bahrām Čōbīn, a prince of the feudal house of Mihrān in the north of Iran, for instance, struck some of his coins with the sign of Ray-Rhages. Our most incomplete knowledge of what happened in the east of the Empire during the Sasanian period will greatly benefit from such studies. Where there are so few sources of information, we must at least open all within our reach.

HOARDING OF THE PRECIOUS METALS IN INDIA

A. H. LLOYD

'From time immemorial India has continually absorbed the precious metals.' *Report of the Royal Commission (1913) on Indian Finance and Currency.*

INDIA has produced the precious metals throughout historical times, and while, because of the great number of her population, 'more in number than any nation known to me', says Herodotus, the tribute laid upon her by Darius was greater than that of any other province, it was levied in gold[1] probably because India was then of all his dominions the principal source of that metal. The tribute required by Darius was 360 talents, and, as the Euboic talent was employed for gold,[2] so Herodotus tells us the tribute reached the gold weight of about 1,140,000 sovereigns, though its purchasing equivalent at that time was vastly greater. India's production of gold in the year 1925 was about half as much again, being equal to the weight of 1,673,500 sovereigns;[3] in 1931 she produced £1,566,340.[4]

We do not know what weight of gold India produced in the days of Darius: it may have taxed even her great capacity to reach the weight of the tribute, or, on the other hand, the statesmanship of the Great King may have led him to take no more than two-thirds of what was produced annually, in which case the annual production in the fifth century B.C. would be approximately the same as that of 1925. We may regret that Herodotus does not satisfy our curiosity as to the quantity of gold produced in his day by India, but he goes some way to compensate us for that lack by giving interesting details of some of the methods of producing it. He says—I quote Godley's translation in the Loeb edition—'All this abundance of gold . . . they win in such manner as I will show.' He describes certain classes of the inhabitants and then proceeds:

'Other Indians dwell near the town of Caspatyrus and the Pactyic country, northward of the rest of India . . . they are of all Indians the most warlike, and it is they who are charged with the getting of the gold, for in these parts all is desert by reason of the sand. There are found in this sandy desert ants not so big as dogs but bigger than foxes. . . . These ants make their dwellings underground, digging out the sand in the same manner as do the ants in Greece, to which they are very like in shape, and the sand

[1] Hdt. iii. 94.
[2] Ibid. 89.
[3] *Indian Year Book*, 1927, p. 658.
[4] *Whitaker*, 1934.

which they carry forth is full of gold. It is for this sand that the Indians set forth into the desert. They harness three camels apiece, a male led camel on either side to help in draught, and a female in the middle: the man himself rides on the female, careful that when harnessed she has been taken away from as young an offspring as may be. Their camels are as swift as horses, and much better able to bear burdens besides. . . . Thus and with teams so harnessed the Indians ride after the gold, using all diligence that they shall be about the business of taking it when the heat is greatest; for the ants are then out of sight underground. . . . So when the Indians come to the place with their sacks, they fill these with the sand and ride away back with all speed, for, as the Persians say, the ants forthwith scent them out and give chase, being, it would seem, so much swifter than all other creatures that if the Indians made not haste on their way while the ants are mustering, not one of them would escape. So they loose the male trace-camels that they lead, one at a time (these being slower than the females); the mares never tire, for they remember the young that they have left. Such is the tale. Most of the gold (say the Persians) is got in this way by the Indians; there is some besides that they dig from mines in their country, but it is less abundant. . . . As I have lately said, India lies at the world's most distant eastern limit; and in India all living creatures four-footed and flying are by much bigger than those of other lands, except the horses . . .; moreover the gold there, whether dug from the earth or brought down by rivers or got as I have shown, is very abundant.'

Out of all those details of method we cannot find anything to guide us to an estimate of weight of annual production. But whatever may be the absolute relationship of the modern and ancient yields of India's sources of supply, they became during the days of classical antiquity, and have continued to the present time, utterly inadequate to her own needs. From the testimony of Herodotus, Strabo, Pliny, and Arrian we learn that the natives of India have always esteemed as well as produced the precious metals. From the fifth century before Christ, when she robbed the 'ant'-miners of their hard-won gold, down to recent days, when she obtains the satisfaction of her needs by more modern methods of exchange, India has stood in the forefront of the gold- and silver-using countries of the world.

India in modern times produces silver as well as gold, and it would be unreasonable to infer, from the levying of her tribute to Darius in gold, that she did not produce the white metal in his day. Five hundred years earlier than the days of Darius silver, because of its plenty, 'was not anything accounted of, in the days of Solomon';[1] and as Darius was obtaining it from nineteen Satrapies he may well have confined his demand upon the twentieth to the more valuable and much rarer metal.

[1] 2 Chron. ix. 20.

In the year 1925 India's production of silver was valued at £705,703.

It is a commonplace frequently uttered that India hoards gold and silver, and it is understood that the statement is made upon the authority of government statistics, with which, however, the majority of those referring to the matter are unfamiliar. The statistics do not deal with hoarding which, by its very nature, lies outside the competence of any government. They concern themselves with the values of the precious metals (1) produced, (2) imported, (3) exported. By adding (1) and (2), and from the sum thereof deducting (3), there is obtained the value of silver and gold retained in the country. After making allowance for the value of the two metals by which the stocks in the mints, currency department, main and district treasuries, and any other government stores are increased or diminished, there is obtained the figure which is described as the 'net absorption' of the country.

These statistics are prepared annually and their cumulative effect is also presented. It would be beyond the purpose of this inquiry to present the statistics in any detail, but the few quotations which follow are a fair summary of the whole.

Here is an extract from the *Encyclopaedia Britannica*:[1] 'The total imports for the year 1905–1906 were valued at 82½ millions sterling, including 14 millions of gold and silver, which are continually hoarded by the people of India.' The figures are doubtless official and the extract is given as a sample of the facts and the inferences from them which have formed the basis of public knowledge of India's hoarding. That quotation comes from the eleventh edition and the fourteenth deprives us of the opportunity of bringing the figures nearer to date.

During the five years ended the 31st of March 1926 India's net *imports* of gold and silver, coin and bullion, amounted to more than one hundred and ninety million gold pounds. That comes from *The Statesman's Year Book*.[2]

During the thirty-two years ended the 31st of March 1926 the net *absorption* of gold alone, coin and bullion, was nearly four hundred and twenty million pounds (£419,377,500).

Despite the great exodus of gold after the abandonment of the gold standard by Great Britain in September 1931 (over £13 millions left the country in the month of December that year) it appears that for the five years *ended* March 1932 India had added a net amount in gold and silver, coin and bullion, of more than 37 million pounds.

[1] 11th edn., vol. xiv, p. 394.

[2] *The Statesman's Year Book*, 1927, p. 135.

By the taking of pains it would be possible to bring the five-yearly figures up to the date of writing, but that would be wearisome and it would have no serious bearing upon an inquiry seeking to discover the principles underlying an age-long practice whose hold upon the people of India shows no sign of having diminished during the first thirty years of the twentieth century. Between September 1931 and March 1933 over £94 millions of gold left India, and it will help us to appreciate the light in which that fact was regarded by the Government of that country if we remember that on the 25th of January 1933, in his inaugural address to the Indian Legislature, the Viceroy said in dwelling upon that export, 'India is able to tap a portion of her own vast resources and by parting with a *very small portion of her immeasurable stores of gold* to realize . . . public advantages . . . combined with private profit.' Such influences are temporary in their effect, and it is not unlikely that the recent export is creating a vacuum in India which a stabilization of the world's currencies will cause her to fill and so to suck in again as much, if not more than she has sent out in that very natural profit-hunger whose effect has been so beneficial to the rest of the world.

In 1913 a Royal Commission[1] on Indian Finance and Currency (the Chamberlain Commission) was appointed, and in the Minutes of Evidence, in answer to question 1032, the information is found that 'The absorption of sovereigns by the public in the 14 years from 1899–1900 to 1912–1913 was £64,815,000, while the absorption of rupees during the same period was £66,750,000'. [It must be noted that these figures quoted from the Minutes of Evidence relate to coin only; they take no account of the large amounts absorbed of both metals in bullion.]

Public opinion in Great Britain, though not always informed of the magnitude of the absorption, is commonly associated with amazement at the facts and frequently speculates upon their interpretation. Strange suggestions are offered, based upon a conception of India as a land of romance, and fed by a recollection of studies during immaturity of Aladdin and his wonderful lamp. Though the sober truth is amazing enough it owes nothing to the weird or supernatural, for it is based upon an economic foundation, supported by racial law and custom, that has continued with the minimum of disturbance during two or three thousand years. It is no exaggeration to say that in the twentieth century ninety per cent. of the population of India are living in their relations to money-economy in conditions similar to those of the Greeks of the sixth and fifth centuries B.C., when

[1] *Accounts and Papers* (Reports, Commissions), 1914, vol. xix.

coinage was introduced amongst the most advanced city-states. It is probable that there are other parts of the world, particularly in Asia, where conditions prevail similar to those here being examined in India, but it would be difficult indeed to find any other country where on a large scale a population subjected to advanced Western statistical documentation still preserves uncontrolled, in almost every detail of its life, the social system it has inherited from a remote past.

Of the total value of the net absorption by India of the precious metals (for this purpose silver and gold) part goes into industry and the arts, part into currency circulation, part to swell the metal reserves of bankers and money-lenders, and the remainder into hoards. None of these channels of distribution is susceptible of exact measurement, and the hoard, knowledge of whose detail and extent is in the very nature of things withheld from others, is measurable least of all. The location, extent, and composition of hoards can in the main be no more than matter of opinion, and the most that can be required is that the opinion shall be responsible and well informed.

It is opinion of that character that was offered to the Royal Commission of 1913 already mentioned. That Commission was not concerned to examine the practice of hoarding; if that matter had been a cardinal feature of its terms of reference, the evidence offered, while gaining much in volume, would have lost more in spontaneity and perhaps in value. The detached attitude of the Commission in its official capacity to the subject of hoarding is clearly indicated by the fact that the only reference to the matter in the Final Report is found in the paragraph quoted at the head of this paper: 'From time immemorial India has continually absorbed the precious metals.'

As it was, in the course of evidence bearing upon the question of a gold coinage for India, and kindred subjects, many witnesses examined by the Commission used their knowledge of Indian hoarding to illustrate and support their views and recommendations. This led to questions by various members of the Commission which brought out much interesting and useful information.

The evidence of public men, government officials, bankers, traders, and manufacturers, European and Indian, supplemented by question and answer in the sittings of the Commission, forms the responsible and well-informed opinion upon which the following statement is based.

There appears to be a curious unwillingness with some observers, European and Indian alike, to use the word 'hoard', not from any doubt as to the existence of what others mean by 'hoarding' but apparently from the conception that the particular word implies a

reproach. Perhaps the occasional phrase 'miser's hoard' may partly account for this attitude, as does certainly the belief that the retention of private stores of precious metals implies a lack of education. This is not necessarily a modern objection to hoarding; there is warrant for it in Holy Writ, though in that case the buried treasure belonged not to the holder but to his master.[1] Intelligent investment may well be an outcome of education, but the possession by the native Indians of solid bullion and coin is a more successful retention of wealth than many forms of investment, such, e.g., as the investment by Lancashire cotton operatives in the shares of cotton-spinning companies whose share certificates are at the present time in most instances titles to liability rather than to wealth. In regard to Indian hoarding, the difficulties of the objectors seem to be removed by the use of the synonyms 'savings', 'reserves', and the like.

The people of India have always hoarded gold and silver, and at the present time more than ever owing to the greater prosperity of the country. This form of accumulation is practised by all classes who can by any means afford it. The rulers of the great native states, such as Mysore and Hyderabad, have vast stores resembling those of great medieval monarchies of Europe and those of Greek city rulers such as Dionysius of Syracuse: where the modern differ from those ancient examples is in the greater magnitude of their wealth. The large zemindars, 'almost princes in the sense of incomes', the rulers of the smaller states, and the smaller zemindars also have their treasuries whose fame is so great that they must be fortified and their owners escorted by armed retainers as they move about their estates. And so the procession makes its way down the ordered grades of wealth until it reaches the humblest individuals in field and factory whose additions are made a rupee at a time. The advance in prosperity is frequently shown in the use of gold by those who formerly hoarded silver: at the Amritzar fair recently (1913) the well-to-do agriculturalists had strings of sovereigns round their necks whereas formerly they had strings of rupees.

In a country so large as India, with its many varieties of climate, race, religion, and economic development, it is not always possible to employ terms and make statements which will possess the same precise value in every district. There are places for instance where sovereigns were occasionally seen in circulation, but the area is restricted and the number of sovereigns seen was small.

That eminent authority, Sir Henry Howard, quoting Mr. Gauntlett, says, 'In Northern India, Bombay and part of Madras the use of

[1] Matt. xxv. 24–8.

the sovereign as currency is steadily increasing. In other parts of India its main use is still for conversion into ornaments or jewellery.' In the great bulk of the country, however, a sovereign is never seen passing from hand to hand, and there is ample testimony that the great mass absorbed by the country goes permanently out of sight. Some do go into hoards as sovereigns but the bulk is melted down. The substitution in great measure of gold, in the form of coin and bullion, for silver for the purpose of additions to the hoards of the poorer members of the population is comparatively recent, being due to the great increase in supply, and consequent fall in price, of silver in the latter part of the nineteenth century. Before that period India's 2,000 million ounces of silver was said to be one-fifth of the world's total stock. One of the witnesses before the Silver Commission of 1876, Mr. MacKenzie, gave the following description of the manner in which silver rupees passed into the hoards of the Indian peasants. 'In every large village there is a silversmith, and as soon as a man gets a few rupees he employs the silversmith to come to his house and make the ornaments. Although the peasantry in India have poor houses, yet the amount of ornaments they have would exceed in value the furniture and utensils of the same class of peasantry in England.' For hundreds of years their whole thrift had been the conversion of silver coins by melting to bullion or ornaments. Silver came to them through coins—coins previous to the coinage of any rupees, all sorts of strange primitive coins. When the rupee came the ryots, having neither cash-boxes nor bank accounts, were in the habit of sending for the silversmiths, and, says the witness, Mr. Frewen, 'I have seen them, and so has everybody who knows India, welding on the bangles in the bazaars. The silversmiths would take the rupees, melt them up, weld them on the arm or the ankle of the man or woman, and charge an anna or two for the job.'

The possession of wealth in such forms has certain definite advantages in a simple society. For instance, still quoting the same witness,

> 'A rupee can be stolen. The natives have got no cash boxes, and they have to bury their wealth or carry it on their persons. You can only steal rupees when they are in the form of bangles by a direct frontal attack. . . . The possessor of a sovereign is unsafe unless he has melted or bangled it; his neighbours will say "So and so has got a sovereign; let us see if we can find it." Moreover, as bangles, they lost none of their uses as wealth. In famine times they used to go to their bunnia or village sowkar and they would cut those bangles off, and the sowkar would weigh them and give them a loan of rupees at a rate . . . according to the pressure of the

demand. . . . But still they could always get par . . . and the sowkar knew that if he had got 100 tolas of silver from the native, it was always as good as 100 rupees to him because he had only to send it to the nearest mint for free coinage. The sowkars did not, indeed, send these native ornaments into the mint unless they were themselves pressed for money; they held the ornaments and they collected their interest. . . . If I were a peasant and wanted 100 rupees, the sowkar would retain my bangles or my ornaments, often heirlooms which I valued, until after I got my crop in, and then I would go and ransom them.'

To these stimuli to hoards of the precious metals are added others based upon Hindu law and social custom. According to Hindu law, no Hindu can alienate, either by will or by gifts *inter vivos*, any property movable or immovable to provide for the welfare after his death of his wife or any female member of his family. Even the widow is entitled only to a miserable pittance and the other females of the family, daughters or sisters, have no legal claim at all upon the heir, who may be a scamp of a nephew without any bowels of compassion. Gifts of jewellery have been looked upon as lying outside the legal bar and to these recent custom has added gifts in coins. To his wife and to his daughters then the thoughtful husband makes continuous presents of sovereigns and jewellery as and when he can. They are presented to a daughter at her birth and upon various occasions thereafter, and a girl of an ordinary middle-class family would in this way have absorbed 50 or 100 sovereigns at least. The sovereigns may be melted down immediately or may be kept until their number is sufficient to make the contemplated pieces of jewellery or gold ornament. The intention so to use the sovereigns as provided by custom seems to have extended the protection beyond the ornaments actually made to the sovereigns from which others could be made. Not only are such personal gifts to women immune from any successful claim by the heir; they cannot be attached even for the husband's or the family's debts. The jewellery and ornaments can be worn by the wife only during her husband's lifetime. Immediately upon her becoming a widow they are realized and the proceeds invested to provide her with an income. The legal provision for a wife in accordance with Muhammadan law, though more generous than that under Hindu law, leaves much to be desired, and similar hoard provisions for female members of the family are made by many Muhammadans. This is said to apply to members of that community in Egypt also.

A large part of the people of India is under the frequent necessity of raising loans. Seventy per cent. or thereabouts of the population is

mainly agricultural and the cultivators have to pay the first instalment of their land-tax, in some places both, before the harvest. For these and other demands money must in most cases be raised. Personal credit is almost unknown in India, and banks especially do not lend without security. The money-lenders who may be induced to make a loan without security charge a rate of 3 per cent. per month and insist upon a duration of twenty months, which means interest of 60 rupees for a loan of 100 rupees for twenty months. There is the possibility of mortgaging the land but the publicity and cost of this present very serious objections, and for the Indian who wants to avoid both mortgage and unsecured loans the easiest way is to raise money by pledging his wife's or his family's jewellery, a method simple, secret, and cheap.

To the Indian native, of whatever class, it is obvious that the advantages of a hoard of coin or bars or ornaments in the precious metals are very substantial. Even if one here and there were able to set aside the influence of heredity and custom (always saving the imperative necessity of providing the endowment for his wife and daughters) and adopt the use of western methods, the facilities available are mostly out of his reach.

'Roughly 75 % of the total towns in India with a population of 10,000 and over have no banks; while in some 20 % of the 75 towns which possess a population of more than 50,000 inhabitants the same condition prevails. Probably this situation is to be ascribed to the fact that the habit of investment is comparatively undeveloped in India, its place being taken by hoarding, and by the conversion of bullion into jewellery.'[1]

So the vicious circle is complete.

The hoards, broadly speaking, are meant to be permanent. They may be used occasionally as pledges for loans, but it is always with the intention of their being redeemed. The tenacity with which hoards are held applies to all classes of hoarders.

The very greatest of all, who, by reason of their wealth, position, and education, have other sources of income, do not need to resort to their treasuries. Beneath these giants come others, still very wealthy, the great zemindars. Of these it is said that 'they put by for a rainy day a certain amount of bullion and a certain amount of gold in ornaments which never see daylight. They are old-fashioned ornaments, very heavy gold bangles and so forth, which the ladies of

[1] 'Statement exhibiting the Moral and Material Progress of India during the year 1923–1924,' *Accounts and Papers* (Reports, Commissioners), vol. xi, 1924–5, p. 118.

India no longer care quite so much for, their taste having changed in favour of more modern jewellery and precious stones.' But there are three great occasions upon which it is invariably the practice of Indians to make a great outlay and display: the marriage of a daughter, the coming of age of a son, and funerals. For the proper discharge of this *trinoda necessitas*, many even of the rich zemindars pledge their gold bullion to the marwaris and the bunnias with the intention of getting it back. Some of the smaller men over-reach themselves and spend more than they can afford. They may not be able to redeem that portion of their hoard which they pledge, 'but it goes back in that form somewhere else'.

Coming to humbler classes, Messrs. Toomey and Fraser, who jointly spoke for the exchange banks of India, were asked the question: 'You cannot suggest any means or any sort of inducement by which those hoards of the ryot class should be brought out?' And their answer was: 'No, there is no way we can suggest. He can afford to keep these hoards and will not part with them.' Another witness said, 'I will quote a case within my own experience at Aurungabad. A little cultivator who had borrowed 400 rupees from a local sowkar died, and apparently left nothing in the world, so the sowkar got an order to examine his premises. They found 4000 rupees, although he was paying $1\frac{1}{2}$ per cent. a month for this loan of 400 rupees.'

Two other inducements to hoarding apart from those already considered are mentioned by an Indian witness; one of them enlarges upon what has already been said upon a similar point, but its details seem to justify separate statement. (1) Every agriculturalist and landowner, when he gets a little surplus, turns it into jewellery. It gives his wife a status as a rich woman, brings peace and happiness at home, as well as providing a source for raising money in emergencies. If his savings are small he buys the sovereigns as he can and presents them to his wife who holds them until there are sufficient to make the ornament desired. (2) This form of hoarding enables traders to endow themselves through their wives with a provision against business misfortune. Two large traders, a leather merchant and an iron merchant, recently (the witness was speaking in 1913) became insolvent. All the assets of both concerns passed into the hands of the Official Receiver, but the jewellery of the wives and daughters was exempt from his power of attachment and the processes of the court. In one case, six months after the insolvency, the jewels of one man were valued at ten lakhs of rupees. Every trader, small or large, with purely honest motives, puts by at least a portion of his savings in the form of jewels. The witness is himself an Indian and

he adds, 'It is unnecessary to mention that some may consider it the best way of cheating a creditor.'

The coin taken for hoarding is the standard coin; formerly this was the rupee, but, since the token value of the rupee has been so widely divorced from the value of its silver content, its place has very largely been taken by the sovereign amongst those who formerly hoarded silver. Smaller coins are not hoarded: it is the standard coins that are chosen. Thus the half-sovereign, though it is legal tender, is not used. 'There is absolutely no demand for them; banks do not import them for that reason.' Another witness says, 'This coin does not find favour in India.' And, as all classes hoard, if pieces of five pounds were available they would be largely used, for it is in a downward direction that a limit is found. The 10-ounce gold bars imported from Australian mints are very largely used for melting down into ornaments just as are sovereigns themselves. The secretary and treasurer of the Bank of Madras, Mr. W. B. Hunter, says that in one small village in the Presidency between 300 and 400 sovereigns a week are taken to be melted down immediately into an imitation coin representing the old 5-franc piece, which is very popular as an ornament for a necklace; they are not counterfeit coins for, while they have the head on one side, the other side is blank.

It should be said that coins do also remain in hoards without being melted down. Sir Alexander McRobert told of one of his firm's work-people whose house was robbed shortly before the witness left India to give evidence before the Commission. Sir Alexander went to see him and received details of the property that had been stolen, and it included twelve sovereigns. Their retention as coins, however, seems to be a minor use; one witness says 'many sovereigns go into the melting-pot', but others put the melting-pot use much higher, one saying that the demand for sovereigns is merely for use for bullion. Why, then, if it is the metal as bullion that is mainly wanted for hoarding, are sovereigns taken instead of gold bars? The answer is twofold. First, coins can be got more readily in small quantities than bar gold; second, their weight and fineness which constitute their value are definitely fixed, being vouched for by responsible and trusted mints.

This account of Indian hoarding may fitly be closed by the quotation of a short discussion in question and answer by two Indian gentlemen, Sir Shapurji Broacha, a member of the Commission, and Mr. M. R. Sundara Iyer, one of the witnesses.

Q. 9000. Would you not agree with me that it [hoarding] is an instinct which we have inherited owing to the unsatisfactory character of the

Governments we have had in India before? *Answer*. Assuming education advances and that Indians learn more and more the nature and value of investments, I do not think hoarding will lessen because of the reasons I have given.

Q. 9002. In ten years we have imported 70 millions in bullion and 57 millions in sovereigns, that is, 127 millions sterling, which is equal to 190 crores of gold, and the only visible sign of that are the 25 crores left in the currency. Would such a thing happen in any other country? *Answer*. I cannot say what would happen in other countries. I can only say that we can imagine that it would not happen in any other country, but we know exactly what happens in India.

Q. 9003. In other countries the sovereigns are either in the banks or they are preserved, as it were, for contingencies. For instance, if England had imported 10 millions sterling, certainly 7 millions would have been in the Bank of England, or even 8 or 9 millions; whereas out of the 190 crores which we have imported into India, we see only visible signs in the possession of the Government of some 25 crores. As you know, more than any other country, we keep, either for ornaments or for hoarding, gold out of circulation; do you not admit that? *Answer*. It is true.

Though this is not directly a paper upon numismatics it may not be without its interest to those concerned in that study. The persistence of the habit in individuals in a simple society of acquiring and retaining coins as a store of wealth, and even of depriving them of their immediate currency and exchange-value by converting them into ornaments or melting them into ordinary bullion forms, presupposes their use for such purposes in ages past amongst societies in an equally primitive state of domestic economy. It is customary to regard the invention and introduction of coins as being primarily due to and serving the needs of commerce. Their value as stores of wealth was inherent, but may we not assume, from the continued practice of their use for hoarding in India from the earliest times, that the suitability of small portions of the precious metals, of defined weight and authoritatively guaranteed fineness, may have had at least an equal, perhaps even a prior, influence upon the introduction and early spread of coinage?

SOME PROBLEMS OF MAMLŪK COINAGE[1]

L. A. MAYER

MAMLŪK coinage has been for a long time the stepchild of numismatics. Not only have Mamlūk coins never been collected systematically, but even big museums with rich cabinets have considered them so unimportant that, having published their catalogues of oriental coins, they have stopped short when it came to publishing the volume devoted to the Mamlūks. So did the Kaiser Friedrich Museum in Berlin, and the Imperial Museum in Constantinople, to mention only the most important ones; their Mamlūk coins had to be treated just in that one volume which has not been published yet.[2]

It was therefore obvious that when the Palestine Archaeological Museum in Jerusalem started its Moslem section it paid special attention to the Mamlūks who, with two or three exceptions, have been responsible for all that is valuable in Moslem art in Palestine and whose coinage, rich and almost unknown, had been so severely neglected in the past.

We have succeeded in bringing together a collection of about 4,000 pieces which form the subject of a special catalogue to be published soon. Besides buying the coins themselves we have made a point of securing casts and rubbings of as many Mamlūk coins outside our own cabinet as we could get hold of, and if there is anybody in this room who owns Mamlūk coins or knows of any private collections, and I have not pestered him yet with a request for casts and rubbings, please let me have name and address. We are anxious to have our catalogue as complete as possible so as to serve as a *corpus* of Mamlūk coinage.

Some of the numerous problems that have cropped up in the course of writing this catalogue have solved themselves, by comparing specimens from other collections; some will, or are being, solved for us by the chemist of the Department of Antiquities in Jerusalem. I am not going to bother you with all the little points which are not problems any more, but I should like to put before you a few such questions, to which I find no satisfactory answers, and ask your help.

[1] This address is printed as it was read before the Congress. Edd.

[2] Mamlūk coins in the Bibliothèque Nationale, Paris, and the British Museum have, of course, been catalogued by Lavoix and Lane-Poole respectively.

Medieval Arabic chronicles, hand-books of administration, encyclopaedias, books of travel, &c., contain many references to Mamlūk coins, and it was our first task to find out how much of this information is reliable and can help in explaining Mamlūk coinage. One of the coins mentioned often in these texts is the *dīnār jaishī* (= army dīnār). Judging by the name it should be a dīnār used in defraying military expenses, which, seeing that all important government officials of the Mamlūks were of military rank, and expenditure on wars was the main item on their budget, would mean that about half, or a third, of all dīnārs on the market would be army dīnārs. Now, the monetary policy of the Mamlūk sultans, especially the Circassians, is characterized by a constant fluctuation of the ratio between the silver *dirhams* and the copper *fulūs*, to the great annoyance of the public, who had to pay for it dearly, losing sometimes a third of their fortunes in these monetary speculations of the Government. The usual procedure was that the Government would issue new coins, forbid the use of the old ones under severe penalties, and fix the ratio between the new copper coins and the dirhams, and after a while issue a new edict, changing this ratio and again imposing heavy fines on all transgressors. Now the whole reason of this was that the price of certain items of expenditure was fixed in silver but used to be paid in copper, which was the coin most current under the Mamlūks, and therefore the Government was interested to have the value of the dirham in its relation to the copper *fils* either raised or lowered, according to whether it had to meet its own obligations or to receive money from the inhabitants. As I have just said, the main expenditure was on the army and military officials of all kinds. But in no case I know of is there any question of the gold dīnār being affected by these edicts; as a matter of fact the Mamlūk coinage, debased as it was in its silver and copper issues, was remarkably pure and correct so far as gold was concerned. We are therefore compelled to assume that the *dīnār jaishī* was only a fictitious monetary unit, something like the guinea in modern English usage. But are we quite sure that there are not two kinds of dīnār in existence, one of which would be the ordinary dīnār—the other the military one?

The *dīnār jaishī*—says Ibn Faḍl Allāh al-'Umarī in his encyclopaedia—was worth $13\frac{1}{3}$ ordinary dirhams, equal to 40 black dirhams. But what is an ordinary dirham and what is a black dirham? When publishing a small hoard of lead coins of Barḳūḳ I have suggested among other things that these lead coins may be the black dirhams mentioned by Ibn Faḍl Allāh and Ḳalḳashandī, expecting the whole time that somebody would take exception to the identification on

the ground that lead becomes white in course of time and silver black. This objection was not raised, but meanwhile I have been compelled to abandon this hypothesis, because nothing could explain the exceeding rarity of lead coins if they were identical with the black dirhams. Ibn Faḍl Allāh tells us that in his days, i.e. the first half of the fourteenth century, Cairo had only black dirhams and no ordinary dirhams at all, whereas Alexandria used to have both. But an examination of dirhams minted in Cairo and Alexandria shows no difference at all, although the chemist, who has not said his last word yet, may still find that there is some. But would a difference which only a chemist could explain be sufficient to make the populace call one kind of them black? Here again I have to ask you to help me in bringing to my notice any lead coins whether of the Mamlūk or of any other period. It may be that in finding more of them we shall come to know more about them and the real purpose for which they were made.

Another little point that I should like to raise here is this. We know from literary sources that several Mamlūk sultans had coins struck in their names outside the Mamlūk realm, among others Barḳūḳ, whose coinage we have already mentioned. He had coins struck in his name in Tabrīz, Mosul, Maridīn, Sinjār, Diwrīgī, Erzerum, Erzingan, &c. Not a single coin of Barḳūḳ from any of these mints has come to my notice and this is the more curious as, although in their own countries these coins would probably never have been used, in Egypt, Palestine, and Syria, or at least in Egypt, as the main province of the Mamlūk Empire, they must have been scattered among the court-officials and merchants to make this compliment to the sultan and the official recognition of his suzerainty known as widely as possible. May I ask you to look out for them?

Another little problem is this. In the days of the Mamlūks, Syria and Palestine were divided into seven big provinces, viz. Damascus, Aleppo, Hama, Tripoli, Safad, Karak, and Gaza. Of all these places only the first four appear on Mamlūk coins as mints, and such important towns and fortresses as Safad, Karak, and Gaza, covering—with their provinces—more than what is to-day Palestine and Transjordan together, are left without any mint of their own. This seems to be as good as impossible, especially for the copper issues, and I should like therefore to suggest that a good many of the numerous *fulūs* without mint-names belonged to that middle section of the Mamlūk Empire. Again I have no proof of that, although among those unnamed mints there are certain characteristics which go on through the ages, so that it is possible to allot to one mint a long series of coins although it is impossible to say to which mint they belong.

RARE MUGHAL COINS

PHILIP THORBURN

THE object of this paper is to describe eight coins of the Mughal Emperors of India which are all interesting and, I believe, unpublished varieties.

AKBAR, A.H. 963–1014 (A.D. 1556–1605)

1. The first coin described is perhaps the most interesting; it is a new variety of the extremely rare *Dīnār-i-Jalālī* of Akbar struck at Agra in the Ilāhī year 49. There are two other coins bearing this same legend; they are both of Ilāhī year 50, month Mihr. The first specimen was in the White King Sale Catalogue, Amsterdam, 1903, no. 3499, and the other is in New York, and was illustrated in Mr. Whitehead's article on rare Mughal coins (*Numismatic Chronicle*, 1927, p. 126).

My coin, however, was struck in the previous year, 49, but the month is not mentioned; it is struck on a smaller flan and is of rather different style; the field is well flowered. The legend consists of the following couplet, one line thereof being stamped on each side:

سعادت یافت دینار جلالی
از مهر نام اکبر شاه عالی

The 'Dīnār-i-Jalālī' *won felicity*
From the stamp of the name of the exalted Shāh Akbar

Obv. دینار جلال
سعادت یافت الهی
۴۹

Rev. شاه عالی
نام اکبر
از مهر
اگره
ضرب

Æ. 0·7 inch. Wt. 167·8 gr.

JAHĀNDĀR, A.H. 1124 = A.D. 1712–13.

2. This is a mohur of the mint Ajmer (Mustaḳirru-l-Khilāfat), A.H. 1124 year *aḥd*, which has not previously been found in gold of this reign, though some rupees are known. The usual title applied to Ājmīr from the reign of Aurangzeb ʿĀlamgīr I until the end of the dynasty is Dāru-l-Khair, but from the latter part of the year A.H. 1119 year *aḥd* of Shāh ʿĀlam I Bahādur until about the sixth year of Farrukhsiyar the title Mustaḳirru-l-Khilāfat is substituted. Only the initial letter of Ājmīr is visible, but the reverse die is arranged in exactly the same way as on the later rupees of Shāh ʿĀlam I Bahādur.

Obv. بادشاه جهان
شـــــــه
١١٢٤
قران جهاندار
حـــــب
سکه بز زر چو صا

Rev. الخلا [جمیر]
مستقر فة ا
ـــــب
ضر
جلوس میمنت مانوس
احد
ســـــــــنة

Æ. 0·8 inch. Wt. 169·4 gr.

3. The next coin is a rupee of Kashmir, A.H. 1124 year *aḥd*, and I believe coins of Jahāndār of this mint have not yet been published; the obverse is arranged in a somewhat unusual manner.

Obv. شاه
جهاندار
ابو الفتح غازی
چون مهر و ماه ۱۱۲۴
سکه
در افاق زد

Rev. مانوس
میمنت
احد
سنة جلوس
ضرب
ضر کشمیر

Æ. 0·95 inch. Wt. 175·5 gr.

4. The coins of Tatta Mint sometimes vary considerably from the normal issues, for instance, the couplet rupees of Shāh Jahān II and the unique rupee of Farrukhsiyar with the legend ثالث صاحب قران 'the third lord of the conjunctions'. Tatta was one of the outposts of the Mughals towards the west, and it is not altogether surprising to find unusual coins emanating from this isolated place; the style of this mint is also inclined to be a trifle crude.

Jahāndār came to the throne on 14 : iii : 1124 (Thursday, 10 April 1712), was deposed on 16 : xii : 1124 (Saturday, 3 January 1713), and died on 17 : i : 1125 (Monday, 2 February 1713). This Tatta rupee, however, is dated A.H. 1125 year *aḥd* whereas Farrukhsiyar started to coin money in 1124, e.g. Æ Shāhjahānābād, Æ Itāwā, Barēlī, Jahāngīrnagar, 'Azīmābād, Lakhnau (and probably other mints).

Obv. بادشاه جهان
شاه
قران جهاندار ۱۱۲۵
حب
بزد سکه زر چو صا

Rev. مانوس
میمنت
احد
جلوس سنة
ضرب
ضر تته

Æ. 0·85 inch. Wt. 172·6 gr.

Jahāndār employed two couplets on his coins, both of which appear on most of the mints, though on the whole I think that the couplet

appearing on the Tatta rupee above is the less common of the two. As far as I know, there is no mention anywhere as to which was the earlier couplet, but it seems probable that what may be called the Sāḥib-i-ḳirān couplet, as on this Tatta rupee, is more likely to be the second couplet than the first.

FARRUKHSIYAR, A.H. 1124–31 = A.D. 1713–19

5. The rupees of Ahmadabad of this reign are not uncommon, being known from the first to the seventh year, but I believe the half-rupee here described is unpublished. The Hijra year is unfortunately missing and the regnal year is partly off the flan, but it appears to be of the seventh regnal year. The obverse is arranged as on *Panjab Mus. Cat.*, no. 3598 (1129/6)

Obv. . . . . بحر و بر فرخ
شـــــــــــاه
. . . ز فضل حق باد
ســـــــــــکه
. . . سیم . . .

Rev. . . . . .
میمنت
۷
سنة جلوس
ـــــــ
ضر
احمداباد

Æ. ½-Rupee. 0·85 inch. Wt. 88·3 gr.

6. The rupees of Chīnāpattan are somewhat rare but are known from 1126 to 1130; they are of rather crude style and have a five-pointed star to the left of the regnal year. This coin is an unpublished half-rupee A.H. 1129 year 6; apart from its rarity, it is in excellent condition and the die seems to be smaller than the ordinary rupee-die which is mostly used for striking half-rupees. There are, I believe, no other fractions of the rupee known from this mint except some very rare barbarous quarter-rupees struck in the name of Muḥammad Shāh, one of which is in my collection.

Obv. . . . بر فرخ . . . .
شـــــــــــاه
ار فضل حق باد ١١٢٩
ســـــــــــكـه
زد بر سیم و زر

Rev. مانوس
میمنت
٦ *
سنة جلوس
ـــــــ
[ضر چیـ]ناپتن

Æ. ½-Rupee. 0·75 inch. Wt. 89·1 gr.

RAFĪʿUD-DARAJĀT, A.H. 1131 = A.D. 1719.

7. The copper coins of this reign are extremely rare, and I am glad to be able to describe a Paisa of Kābul Mint A.H. ? year *aḥd*.

Obv. ت
رفیع الدرجا
[? فلوس]

Rev. . . . . . .
ـــــــ
ضر احد
کابل سنة

Æ. Paisa. 0·9×0·75 inch. Wt. 208·9 gr.

MUḤAMMAD SHĀH, A.H. 1131–61 = A.D. 1719–48

8. Silver coins of Machhlipattan are very rare until it fell into European hands, probably during the reign of Aḥmad Shāh Bahādur, though copper Paisas and half-Paisas appear fairly regularly from about A.H. 1110 to 1222. The title بندر Bandar or Port is always associated

with the copper issues, but never appears on the other metals. Gold coins are only known of Farrukhsiyar and Muḥammad Shāh. The coin described here is an eighth-rupee dated A.H. 1147 year 16. It is extremely rare and, I believe, unpublished. The only other small pieces of this mint that I know of are: Muḥammad Shāh $\frac{1}{16}$ Rupee 1135/5, ʿĀlamgīr II quarter-rupee first year—in the British Museum—and half-rupee 1171/4 in my own collection. The two latter coins were probably issued by one of the European companies.

Obv. محمّد شاه
۱۱۴۷
شـــــاه
سکه باد

Rev. . . . . .
جلوس مچهلی
۱٦
ـــــــ
. . . . .

Æ. $\frac{1}{8}$-Rupee. 0·45 inch. Wt. 21·6 gr.

MULTAN: THE HOUSE OF GOLD

R. B. WHITEHEAD

THIS contribution is concerned with a group of Indo-Sassanian coins stated by Sir Alexander Cunningham to have been struck by kings of Sind; they bear the effigy of a deity which Cunningham described as the sun-god of Multan. This attribution has held the field for forty years and has been widely accepted. I record some considerations which I submit show that the coins do not belong to Sind and that the deity is not the sun-god of Multan.[1]

Multan was called by the early Arab historians and geographers 'the Temple of the House of Gold' because a great hoard of gold was found there by the Arabs who conquered Sind about the year A.D. 713; the magnificent income of the House of Gold consisted of offerings made to a famous idol.

The essay entitled 'Later Indo-Scythians, Ephthalites, or White Huns' (*Num. Chron.* 1894) embodies the mature experience of Sir Alexander Cunningham. He states that the famous temple at Multan was a temple of the sun-god, that it was built by the Ephthalite or Hūṇa chief Toramāṇa, and that the image of this sun-god appears on a group of coins belonging to rulers whom Cunningham calls actual kings of Multan and identifies with members of the Rai dynasty of Sind. The relation of the coins with Khusru II (590–628) brings them within the period of the Rai dynasty. One thing only is related about these kings in addition to their names. The king of Seistan invaded Sind and slew Rai Sahiras. This statement provides a contact with the Sassanians and is used by Cunningham (*Cunn.*, p. 271). I think that the weight of evidence is in favour of the idol of Multan being a sun-god. The statement that the temple at Multan was built by Toramāṇa is pure surmise, as is the identification of local Sind rulers belonging to the Rai dynasty with the great Hūna leaders Toramāṇa and Mihirakula. Cunningham was on firmer ground when he asserted that the Rai kings were White Huns; not only do the earlier years of the dynasty synchronize with the period of Hūṇa supremacy in North-west India, but these kings were known by the title of Zambīl in which we read the tribal name of the Hūṇa invaders of India.

Sir Alexander Cunningham 'ventured to suggest the identification of the rayed bust with the sun-god of Multan because the same bust

[1] This paper is printed in full in the *Numismatic Chronicle*, 1937, pp. 60–72.

appears on the coins of Shāhi Tigīn, and Vasu Deva, the actual kings of Multan' (*Cunn.*, p. 291). Mr. F. D. J. Paruck carried the matter to its logical conclusion when he wrote of 'the gold and silver coins of Khusru II struck at Multan'. This view of the case, based on Cunningham, is further elaborated with useful references.[1] The

FIG. 1. FIG. 2. FIG. 3.

coin of Shāhi Tigīn, preferably (as read by Drouin) Vāhi, with the Turkish title Tigīn, is the celebrated trilingual piece illustrated in *Cunn.*, Plate X, 9. There are fifty-five specimens in the British Museum. Cunningham read the Pahlavi reverse legend to right as *Takān Khorāsān Malka*, 'the king of Takān and Khorāsān', and took it as the equivalent of 'the king of India and Persia' of the Nagari marginal obverse inscription, since Takān was the name of the Punjab. The bust on the reverse is described as a 'male head to front, with rayed flames ascending to a point, the sun-god of Multan'. (Fig. 1.)

The coin of Vasu Deva is *Cunn.*, Plate X, 10; there are eight specimens in the British Museum. Cunningham read the obverse marginal legend in Pahlavi to left as *Wahman Multan Malka*, 'king of Bahman and Multan'; Bahman was taken as referring to Bahmanabad, an old capital of Sind. The Pahlavi legends on the reverse were interpreted as *Takān Zaülastan*, 'Punjab, Zabulistan', and *Sapardalakhshan*, 'Rajputana'. (Fig. 3.)

[1] *Sasanian Coins*, by F. D. J. Paruck, Bombay, 1924, pp. 125, 269 f.

A third coin is in the British Museum and appears to be still unique: it is *Cunn.*, Plate X, 11. The portrait resembles that of Vāhi in style, but there is the curious little figure in the right field. To the left of the head is a Kushan Greek legend and to the right a Pahlavi inscription. The reverse bears a long marginal Kushan Greek legend. On each side of the deity is a Pahlavi inscription. The word on the right is clearly the equivalent of Zabulistan; that to the left was read by Cunningham as *Saparlakshan*, 'Rajputana'. (Fig. 2.)

The boundaries of the Rai kings of Sind are defined fairly accurately in the Chachnāma. Their dominion extended on the south to Dewal and the sea, on the west to Makrān, on the east to the boundary of Kashmir, and on the north to certain mountains. At this period the Kashmir power extended down to the Salt Range. The seats of the four governors are given: Bahmanabad (in Lower Sind), Siwistan (Sehwan), Iskandah (probably Uchh), and Multan. They show that the Sind of our period was much the same as modern Sind with the addition of Multan. This local dynasty cannot be identified with kings of Zabulistan and Khorāsān. The vast extension of the Rai power to the west (*Cunn.*, p. 273) is incorrect. The word read as Kirmān should be Kuramān, the region of the Kurram valley; this mistake has led to much misunderstanding.

I had always distrusted the conclusions of Cunningham, because I was convinced from my own experience in India that the coins in question were not found in Multan and Sind, and had nothing to do with these parts. The find-spots are usually on the NW. Frontier, and in Afghanistan; the nearest place to Multan is Manikyala. Cunningham himself writes of the Vāhi coins: 'Two specimens were obtained by Ventura in the Manikyala Stupa. Dr. Lord got forty to the north of the Caucasus. I have received some twenty or thirty from Kabul, and I am aware that a few have been found in Sindh and Kacch.' Three out of Cunningham's four specimens of Vasu Deva came from the Masson Collection, and Masson got his coins in Afghanistan. To my mind, the evidence of the find-spots is conclusive. I agree with Edward Thomas that the triple legends point to a borderland where various languages met and interchanged methods of writing; Thomas suggested the locality of Bamiān, which seems likely.

A recent description of the Vāhi coin is that by Dr. Vincent Smith.[1] He cannot read the word Takān, but the title 'king of Khorāsān' is certain. The reading and meaning of the Brahmi (Nagari) legend still remain obscure because the characters are imperfectly formed

[1] *Indian Museum Coin Catalogue*, 1906, vol. i, p. 234.

and vary much in different specimens. This was precisely the verdict of Edward Thomas, who wrote: 'The truth is the Sanskrit characters are so imperfectly formed and vary so materially in different specimens that this in itself creates a tendency to distrust any decipherment however carefully collated.' The die-sinker was so poorly acquainted with the Indian alphabet that the legend has not been read with certainty after a century's efforts. On some Vasu Deva coins the Indian legend is written from right to left. These facts point to an origin outside India proper.

Sir Alexander Cunningham described the deity on these coins as 'male head to front, with rayed flames ascending to a point'. The deity had to be male in order to be a sun-god. Edward Thomas noted that the face is unadorned by either beard or moustache, 'but still in the majority of instances looks anything but feminine'. The fact remains that the artist has carefully included moustache or beard in the king's portrait, and as deliberately omitted them from that of the deity. The contrast between the two busts is best studied on the piece of Vasu Deva. One head is male and the other appears to be female.

The reading of the word translated as Rajputana is quite uncertain. In view of the foregoing considerations I think that Cunningham would have come to a different conclusion but for the legend *mltan mlka* on the Vasu Deva piece. This reading is certain and Cunningham could see no other interpretation but 'king of Multan'. However, there is an alternative translation. I have the great authority of Professor Ernst Herzfeld for stating that *mltan* means first of all *mardān*; *mardān shāh* is a well-known name or title. Professor Herzfeld holds that the deity is an Iranian goddess.

The piece of Vasu Deva is an imitation of the drachm of Khusru II (Paruck, op. cit., Pl. XXI, 463): the gold coins of Khusru II are figured at 455, 456, and 457. The issue is exceptional, and the pieces are extremely rare; unfortunately there in no mint monogram. Mr. John Walker has already concluded that the deity, if a sun-god, is not the sun-god of Multan (*Num. Chron.* 1935). The representations of the kings on the remaining two coins are true portraits; belonging to the time of Khusru II, they are probably Turks. The Ephthalites in Central Asia had been overthrown by a coalition of Khusru I and the Turkish *khāqān*; Chavannes shows that this victory took place between the years 563 and 567. The Western Turks for nearly a century succeeded to the Central Asian dominions of the Ephthalites, and for a time extended their supremacy to the Kabul valley.

To conclude, these hybrid coins were struck by kings with Sassanian affinities, not in the Punjab and Sind, but in Zabulistan and other debatable lands between Iran and India. The pieces exhibit an Iranian deity taken from certain issues of the Sassanian king Khusru II; this is probably a token of suzerainty. Recently a new type has been found; nothing can be said about the inscriptions, as the piece is in poor condition, and the obverse legend is off the flan. The metal is copper, size 0·55 inches, weight 7·2 grains. The coin belonged to the author, and is now in the British Museum.[1]

[1] For illustration see *Num. Chron.* 1937, p. 72.

SECTION VI

MEDALS

A MEDAL OF CHAFFREY CARLES

JEAN BABELON

IN his paper, which is published in full in the *Gazette des Beaux-Arts*, Sept.–Oct. 1936, M. Jean Babelon discussed the following medal:

Obv. Bust of Chaffrey Carles r. IAFREDVS · KAROLI · IVRCONSVLTVS · PRESES · DELPHINATVS · E MLI.

Rev. Priest guiding Carles, assisted by an angel, up a mountain. He helps Carles with his right hand and points to the sun with his left: NATVS EGO TIBI SVM VENIAM QVOCVNQVE VOCARIS.

This specimen, recently acquired by the Cabinet des Médailles, was traced to the Heiss Collection which M. Babelon identified as the collection of M. Axxy, sold by Hoffmann on the 19–20th of May 1880, where it was lot 125. Other specimens are in the Ambrosiana in Milan, the Library at Grenoble, and the British Museum.

Descended from Jean de Carles, of Dronero, in Piedmont, Chaffrey Carles (IAFREDVS KAROLI) became the counsellor of Frederick, Marquis of Saluces, after having passed his degree as a doctor at Turin at the age of twenty. Marquis Louis II made him podestat of Saluces and of Carmagnola and appointed him his counsellor and deputy to defend his cause against Duke Charles of Savoy, who claimed to dispossess him of his land. After several political missions he was appointed by Charles VIII, King of France, Counsellor to the Parliament of Grenoble in 1494. In this assembly he held the chair of the president in 1503. He passed into Italy with Louis XII during the Milanese conquest and was nominated member of the Senate of Milan instituted in 1499–1500. He was first vice-president, then president, after the departure of the Bishop of Paris, François Poncher, who occupied the chair till 1504. Carles was one of the negotiators of the League of Cambrai against Venice in 1508. After the battle of Agnadel on the 15th of March 1509, Louis XII consecrated him as Knight at Arms, a title which conferred upon him the privilege of wearing garments embroidered with gold, the sword, the belt, the spurs, and other military insignia, with the privileges attached to them. But, after the battle of Navarre on the 6th of June 1513, the King of France was forced to beat a retreat, and Chaffrey Carles followed his sovereign. He seems to have settled again in Grenoble and died there in the beginning of 1516 at the age of about

fifty-five. He was buried in the choir of Saint Andrew on the 10th of April.

He was celebrated as a patron of arts and letters, and his home in Milan was much frequented by men of letters, notably Battista the Mantuan, who may have suggested the reverse motto which is based on Virgil, *Ecl.* iii. 49. The reverse type, it might be suggested, is a cabbalistic allegory representing Carles ascending towards God. No definite attribution to an artist can be made, but Caradosso is not impossible.

SOME MEDALS OF THE FRENCH REVOLUTION OF 1848 AND THE SECOND REPUBLIC

S. H. FAIRBAIRN

(*Plates XXIV–XXV*)[1]

FOR the study and collecting of ancient coins there are both reasons and excuses enough. They charm us with their art and they supply us with a field for research; but the medals which I propose to consider to-day are devoid of beauty and rarity, present no problems, and add nothing to our knowledge though not a little to our understanding of their time. Because of their ugliness and commonness, they have been despised by the amateur, and it is to the student of history rather than to the artist that they make their appeal. To the historian, however, they do not appeal in vain.

The French medals of 1848 provide us with the most complete numismatic record in existence of any single period in history. No event of importance, hardly a meeting, a speech, or a procession escaped the medallist's attention. The whole history of that eventful year is written on copper, tin, and lead, and it has been estimated that the varieties that appeared in the first five months alone are to be numbered by the thousand. The majority of them are crude white-metal casts or strikings. The design is often, if present, of primitive, almost infantile type. The legend is the essential feature.

These medals constitute a series of political records, satires, and aphorisms published in metal. It would seem as if those who lived through those exciting days feared lest the printed word might perish and no permanent record remain, and they appear to have set to work to produce a sort of metallic journal which should record the daily doings of Paris and the rest of France.

This flood of free-lance production was due to the sudden lifting of the censorship and of the heavy pecuniary restrictions and guarantees which the government of Louis-Philippe had imposed upon the press. With his fall these lapsed automatically under the wave of liberal idealism which ushered in the Republic, and the freedom of publication produced a fourfold increase in the Paris press.

The walls of Paris were suddenly covered with violent political posters. New daily papers appeared by the score, leaflets were published by the hundred, and the desire for public expression

[1] Owing to exigencies of space it is not possible to illustrate more than a selection of the medals shown by Dr. Fairbairn to the Congress. Edd.

found vent among other things in the medals under consideration, which should be regarded in the light of ephemeral publications in metal.

They reflect all shades of political opinion. The extreme revolutionary, the Bourbon, and the Orleanist are all represented, while some simply give an impartial record of events or express a mild and cynical criticism of the happenings of the day.

They have come down to us in enormous numbers, especially the cast pieces. De Saulcy, writing at the time, states that these cast pieces were made in very small numbers when originally produced, but that re-casts were at once made from them. This was inevitable. It has always happened to cast medals since the Renaissance, and of course in no way detracts from their authority or historical interest. They may be criticized as exemplifying a certain self-conscious effort to stimulate and satisfy the collector of their time. It is also alleged against them that some of the anti-revolutionary pieces were struck later than they professed to be. Be that as it may, they nevertheless form a vivid picture of the feeling of the time which no student should neglect, and they show those three essentials to the understanding of any period, namely what was true, what was thought to be true, and what men wanted to be thought true.

In the very short time at my disposal I cannot attempt to do more than give you the shortest sketch of the history of the second Republic, as shown in a few selected specimens, in the hope of stimulating some interest in a series so instructive to the student of politics but so neglected by the numismatist.

The Revolution of 1848 broke out on the 24th of February. Louis-Philippe was on the throne and a docile Chamber, of whose members no less than a third held sinecures or places under the Government, unhesitatingly obeyed the king and his minister, Guizot. The constant lack of success of the foreign policy of the Government and the obvious corruption of the legislature had made it unpopular, and a strong reform movement had grown up. Reform banquets were being held in the large towns all over France, one of which had just been prohibited by the Government in Paris. Although the Government and the Reformists had come to a working agreement over this particular banquet, a demonstration had taken place and had been fired on by Government troops with serious casualties, and the mass of the population rose. Barricades were thrown up in the streets, the Chamber was invaded by a mob, and after the Duchesse d'Orléans had attempted in person to save the monarchy for her son, a provisional government was proclaimed.

We take first some medals which belong to the early part of the series. On the first (Pl. XXIV, 1. *rev.*) there is a reference to the banquet and the reform agitation; also to Odilon Baron, who belonged to the Reform Party and had been called in with Thiers to form a government after the resignation of Guizot. *Vive la Ligue* was the cry of the revolutionaries after the Garde Nationale, a middle-class militia, had been ordered to suppress the rising, but had proved to be too sympathetic towards its purpose, for the second legion shouted *Vive la Réforme* as they marched down the Rue de Rivoli.

Another medal shows the proclamation of the Republic on the barricades which had sprung up during the rising, and a reference to the events of the 24th of February in the legislature reading: 'Three ministries in one day, the Duchesse d'Orléans proposed as Regent, and the definite formation of a Provisional Government followed by a list of the members of the said Government.'

I mention another medal (Pl. XXIV, 2. *obv.*) because it illustrates one of the characteristics of 1848, namely, the reproduction of features of the first Republic. The obverse of this piece is from the well-known medal commemorating the fall of the Tuileries on the 10th of August, 1792, and other reminiscences of the previous Revolution are continuously occurring in the journals. It must be borne in mind that there were many people in 1848 who remembered the terror of 1794, and the fear of another Mountain was largely responsible for the cruelties which we shall see later.

The next medal (Pl. XXIV, 3. *obv.*) is a good example of the pitfalls that await the unwary. It reads 'Le Père Duchesne Bon Patriote en 48 comme en 93' and is an imitation of the well-known Père Duchesne medal of the Revolution. The title has been so bound up with Hébert's journal that the date 1789 on the reverse has been ignored and one frequently sees it described as referring to Hébert's disgraceful publication. Our medallist here has done the same thing, ignoring the truth, namely, that the 1789 medal referred to a comparatively unimportant publication some years before the notorious Père Duchesne of Hébert.

Another medal shows Louis-Philippe as an itinerant beggar with Guizot playing a violin and the legend 'He only wanted the good of his people'. The king slipped away quietly to England, according to precedent, crossing the Channel under the name of William Smith, and though perhaps this piece lacks generosity, the treatment meted out to the royal family compares favourably with that of sixty years before. No serious steps were taken to stop his escape, and his

existence after his abdication seems to have been ignored by the provisional government if we are to believe Lamartine's memoirs.

The presiding genius of the early stages of the Revolution was Lamartine, then at the height of his literary fame. The mob invaded the Hôtel de Ville where the provisional government was sitting, and demanded the substitution of the Red Flag for the Tricolour. Lamartine's reply became famous: 'The Red Flag has flown only in the Champ de Mars stained with the blood of the people. The Tricolour has flown throughout the world with the name, the glory, and the liberty of our country.' The Red Flag had been hoisted on the barricades during the various abortive risings in the previous reign. Lamartine's remark, it has been pointed out, is historically inexact, but this speech of his seems to have first given the Red Flag its modern official significance as the symbol of a class as opposed to a political movement.

Before going farther I must refer to the great economic experiment and failure known as *Les Ateliers nationaux* or the National Workshops.

No sooner had the provisional Government come into existence and begun to sit at the Hôtel de Ville than an imperative demand for work, and the right to have work provided, was made by an armed deputation. This was promptly conceded as a principle under *force majeure*, and Louis Blanc, known for his book *L'Organisation du travail*, seemed the obvious person to deal with the question and was therefore commissioned to organize work for the unemployed.

I will not worry you with details of the familiar story. Louis Blanc sat at the Luxembourg and Thomas at the Parc Monceau nominally to organize relief-work, but practically to organize relief-pay. Unemployed men flocked to Paris to get their 2 francs a day, and so far did the demoralization go that employers found themselves unable to get labour during a financial and an industrial crisis.

We have on one of the early medals the words: *Droit au travail*, 'the right to work', which were used by Marche, the leader of the armed deputation I have mentioned, and were momentous, for they led to the national workshops and their closing, and from the closing arose the rising of July, and from the repression of that rising came the election of Louis Napoleon as Prince-President, and with his election the history of Europe entered on a new phase.

One cannot help noticing the similarity of the political problems and events of 1848 to those of the present time, but here I must put a check upon myself before an international audience for questions of unemployment and *coups d'état* and personal rule are to-day *ignes suppositos cineri doloso*.

The national workshops were finally abolished by an order of the Government, which decreed that men between the ages of eighteen and twenty-five should join the army and that others should take any work offered by private employers. Men from the country were to leave Paris and go back to their homes. One medal (Pl. XXIV, 5. *obv.*) shows the popular idea of the workshops: three men, all doing nothing, with the exception of one who is smoking: two trees, planted on the boulevards, to replace those destroyed in the fighting of February, and a wheelbarrow, to represent the idea of work, an idea never perhaps entirely absent, at all events in the minds of the organizers. The reverse reads: 'A decree of the Provisional Government February 27th 1848, orders the establishment of National Workshops and names the citizen E. Thomas Director. Through bad organization no useful work was ever performed by them, and they were dissolved by the desire of the National Assembly on June 23rd 1848.'

It is necessary to say a word or two on the subject of the clubs, for before the Republic was a month old over a hundred and forty-five clubs had come into existence in Paris alone. Many of them endured for a few days only, and have left no record except such things as these roughly cast pieces which appear before you. Such descriptions as have come down to us of the procedure at most of these clubs show long, solemn, and wearisome discourses on liberty and the rights of man, and little or none of the incitement to violence, as was popularly believed by the well-to-do classes. The pieces are more or less of a type. Such medals invariably bear the name of the club and its president with one or more Republican emblems characteristic of the time, such as the level and the plumb-line. Some appear to have been used as entrance-tokens. I also show a medal (Pl. XXIV, 4. *obv.*) as illustrating the feminist movement which first appears at this time. There are numerous medals extant, mildly satirical of the women's clubs, which flourished for a short time, but were finally dealt with by the Assembly, when as we shall see later the conservative element got the upper hand. This one reads: 'So the poor women have neither soul nor political capacity. The Concile de Mâcon excludes them from Paradise and our Republic from the Clubs.' On the reverse: 'Club des femmes Présidence de Madame E. Niboyet,' &c.

Another piece shows that the events in Paris did not meet with universal approbation: 'We the peaceful inhabitants of France to the number of more than twenty millions protest against the events of February 24th 1848, let posterity know that it is with fear and

repugnance that we see our country a Republic.' This medal is also evidence of the moderation of the Republican Party in power. Such a piece could not have been issued during the great Revolution from 1790 onwards.

From the early days the situation resolved itself politically into a struggle between what we should now describe as the Right and Left Wings of the Republican Party in power. Demonstrations took place in the middle of March in the form of huge processions to the Hôtel de Ville where the provisional Government were sitting. Two of these on successive days in March showed by their reception in the streets that the Left were still strong, but the hostile reception accorded to a workers' demonstration on the 16th of April, followed the next day by a popular march of the National Guard, proved that feeling was moving to the Right, and that the newly formed Garde Mobile could be trusted to support the Government in power, and the Left Party began to realize the strength of the conservative element in Paris.

There are many medals of these demonstrations which we now see to have been in the nature of public trials of strength between the parties and as such to be of great historical importance. We have one struck apparently with complete impartiality. On the one side the demonstration of the 17th of March: 'power of the democracy, peaceful manifestation of 200000 Proletarians against the aristocracy of Paris': on the reverse: 'April 16. 48: spontaneous manifestation of 200,000 National guards against communism.'

So far there had been no actual clash, but on the 15th of May matters came to a crisis in the dramatic invasion of the Chamber. The elections had taken place at the end of April and a strong Republican Right majority had been returned. The revolutionary element in Paris decided to present a petition on behalf of the Poles then in revolt, and to use the occasion for a demonstration against the Government. They met at the Place de la Bastille, marched on the Assembly, and through the timidity of the authorities they succeeded in forcing their way into the Debate and took possession of the sitting. Barbès and Blanqui, who were the leaders of the Extremist Clubs, attempted to control the situation, but after three hours of uproar Huber, a notoriously shady character suspected at one time of having been in league with the police, occupied the Tribune, declared the Assembly dissolved, and a new provisional government constituted. But before nightfall the Garde Nationale was called to arms and restored order, and the movement collapsed ignominiously. From that moment it became clear that force alone

could solve the two problems, the political struggle with the extreme Left, and the economic sore of the national workshops.

Here we may mention three medals relating to this episode. The first one gives the names of the ephemeral Government proclaimed by the invaders Barbès, Ledru-Rollin, L. Blanc, Albert, Blanqui, Cabot, Raspail, &c. This list does not seem entirely accurate from other accounts of the proceedings, but the obverse shows the state of mind of the maker; the sword and axe and the words *Comité de salut public* betray his belief that 1794 had nearly come again, and it must be remembered that posters actually proclaiming a *Comité de salut public* were found later, ready for publication.

The second medal (Pl. XXV, 3) is illustrative of the old tale of looking for a foreign origin in domestic misfortunes. The words *Toujours la main des étrangers dans nos malheurs*, 'always the hand of the foreigner in our misfortunes', have a very modern ring, while the other side, accusing the Prince de Joinville, son of the King, of having been secretly present, is a fine specimen of emotional credulity.

The National Assembly proceeded on the supposition that the invasion of the Palais Bourbon was a premeditated attack, and brought the instigators and chief actors before the High Court which condemned them to imprisonment for life in 1849. But before that proceedings had been taken against Louis Blanc and Caussidière, a former Prefect of Police.

The third medal reads: 'Session of the night of 25th and 26th August 1848. Report of the Commission of Inquiry on the invasion of the Assembly on May 15th '48. The National Assembly authorized the prosecution of citizens, Louis Blanc and Caussidière, representatives of the people.' Louis Blanc fled to England where he remained for twenty years until the fall of the second Empire.

There is a series of crude portrait-medals of the leaders of the Left connected with this attack. Amongst others there is one of Huber and one of Blanqui, prisoners in the dungeon of Vincennes, by the republicans of the National. The moderate party of the Republicans were closely identified in the early stage with the newspaper *Le National* which gave its name to the group.

The final struggle now became imminent. The conservative element felt itself sufficiently secure after the easy suppression and lack of success of the attempt against the Assembly, and proceeded to deal drastically with the growing scandal of the national workshops by issuing a decree to which I have already referred, and disbanding the 130,000 men who were living on public money. The result was not unexpected. It was the rising of the 23rd of June.

This rising, the most sanguinary that Paris had ever seen, lasted for four days. The eastern half of Paris rose almost to a man and formed itself into a barricaded fortress in its then narrow and tortuous streets. Each barricade had to be attacked with artillery, almost every house was stormed separately. The casualties have never been known—15,000 is a common estimate, but is probably too small. No less than six general officers were killed on the Government side. Up to this time the government had been carried on by an executive commission of five, sitting at the Luxembourg, on the lines of the directory of 1795. On the second day of the revolt they resigned their functions, and the minister for war, Eugène Cavaignac, was granted complete dictatorial powers to deal with the situation.

There are many medals extant dealing with Cavaignac and the suppression of the revolt. One reads: 'The Executive Commission appointed on May 10th composed of citizens Lamartine, Arago, Ledru-Rollin, Marie, Garnier Pagès, dissolved by a vote by the National Assembly on June 24th.'

Another medal bears a fine portrait produced by Allen and Moore of Birmingham: 'The immortal memory of the brave and unselfish citizen Eugène Cavaignac acclaimed as head of the Executive June 1848.'

The rising took three whole days to suppress and was the first occasion on which government forces were successful in large-scale street operations. They were well prepared, troops having been moved up to Paris shortly before for the impending clash. The usual crop of rumours appeared, suitable for a time of such tension.

On the medal shown on Pl. XXV, 2 we have an emblematic design of the rising: 'Liberty or death, bread or lead, long live Barbès'; and on the other side, 'model of bullet used in the civil wars coming from abroad'. This medal is particularly interesting because the usual accusation of foreign gold was officially made by the Government in the Assembly, actually by Monsieur Flocon. Foreign gold, at this period of the world's history, stood for English gold, and the British Ambassador actually protested about the matter to the Minister for Foreign Affairs, who admitted that it had been *une tactique pour appaiser les députés*, a tactical move to keep the members quiet. One must remember the unpopularity of England in France at this time owing to Palmerston's hostile attitude after his diplomatic check in the affair of the Spanish marriages.

Another piece refers to the terrible reprisals that followed the rising. The enormous losses of the regular troops, the treacherous

murder of General Bréa, the death of the Archbishop of Paris, shot in the actual fighting-line, during a heroic attempt to stop the bloodshed, and above all, the constant memory of 1794, and the state of fear in which Paris had lived for four months produced the cruelties which followed. Literally thousands were shot in the streets during the days following the surrender, and many more who had been arrested with arms in their hands, or else informed against by their enemies, were imprisoned and transported. But it is interesting to note that in spite of the severity of the authorities it was still possible for medals like this to be issued. The design shows an arrest, an execution, and a street killing. In the background we see a broken tree of liberty, and the legend reads: 'The St. Bartholomew of June 1848, or the White Terror. The Royalists take their revenge for the revolution of February, they kill and transport the republicans without trial.' The term 'White Terror', I need hardly remind you, was first applied to the Royalists' reaction after the Restoration of the Bourbons. The Trees of Liberty had played a great role in the early days of the Revolution of this year. They had been planted in many places by bands of working men with an almost religious ceremonial.

Another medal on the reprisals bears the legends: 'Republic of the state of siege. Under the government the republicans are thrown into dungeons by the orders of General Cavaignac, the saviour of the country. Transportation of more than 4000 citizens who are still suffering on the hulks at Brest.'

The next few medals are similar to those we have already described. I leave it to you to decide whether they were made by a sympathizer with the rising, or as propaganda by the other side.

'*Du travail, du pain, ou du plomb.*' Work, bread, or bullets, was the rallying cry of all those who suddenly found themselves stranded by the closing of the national workshops, and was heard all over the east of Paris during the night of the 22nd of June, the eve of the rising (Pl. XXV, 1 and 2).

We now come to the election for the Presidency and the advent of Louis Napoleon. Elected as representative in the Assembly for no less than four departments, he had carefully remained outside the sanguinary struggle of June. A strong Bonapartist campaign began in the beginning of June, and many small medals were struck celebrating his election as representative. On one (Pl. XXV, 4) is a reference to his candidature for the Presidency. The sympathies of the author are obviously with Lamartine, but Lamartine's day was over. In modern parlance he might have been described as the Kerensky of the Revolution. But doctrinaire liberalism and idealism

had perished on the corpse-strewn barricade, and the issue lay between the victor and the vanquished. It was small wonder that the man in the street turned to one who had been neutral in the recent struggle, part of whose tradition, at all events, stood for success and firm government. Of the three candidates here mentioned Louis Napoleon received about 5½ million votes, or 75 per cent. of the total electorate, Cavaignac 1½ millions, and Lamartine under 18,000.

A medal on the result of the election is obviously prompted by bitterness towards Cavaignac (Pl. XXIV, 6. *obv.*). It reads as follows: 'State of siege, Cavaignac, pitiless towards the insurgents of June, very gentle during the election for the Presidency, very depressed after the ingratitude of the bourgeoisie', and on the rim 'Casemates. Hulks. The people of Paris will never forget the man of Africa', which of course refers to Cavaignac's career as a soldier in Algiers: on the reverse: 'Cavaignac, terrible and pitiless before, gentle and conciliatory during the election, thoughtful and out of a job after.'

With the election of Louis Napoleon, the output of political medals diminished considerably, with the exception of those pieces in all metals and in all sizes which celebrate his election. Nevertheless, though the clubs were restricted almost to extinction and an atmosphere of repression made itself felt, a certain number of cartoonists still pursued their trade. There are examples against the Government, one of which bears the inscription: 'The political scaffold abolished on February 26th by the Provisional Government and re-erected on March 17 1849 by L. N. B. Long live the guillotine.'

A Republic had been proclaimed at Rome on the 9th of February 1849 under the leadership of Garibaldi and Mazzini, and the Pope had fled to Gaeta, placing himself under the protection of the King of Naples. A war between the northern Italians and Austria had gone heavily against Piedmont. At the battle of Novara on the 23rd of March 1849 the Piedmontese army had been totally defeated, and Carlo Alberto had resigned in favour of his son Victor Emmanuel. The whole of the north of Italy was at the mercy of Austria, and Austrian interference in Rome in support of the Pope seemed imminent.

A credit was obtained from the Assembly for a Mediterranean expeditionary force, designed nominally for the protection of Venice and Piedmont from the Austrians, but generally known to be destined for the support of the temporal power of the Pope and his re-establishment in Rome, and against Austrian domination in the Italian Peninsula.

Oudinot, the French general in charge of the expedition, had but 7,000 men in all, without siege artillery. Landing at Cività Vecchia,

he marched on Rome, only to be severely defeated with a loss of 250 prisoners. Louis Napoleon at once treated the ill success of the expedition as an affront to the military honour of France, and large reinforcements were dispatched, ending in the capture of Rome and the restoration of Pio Nono.

Although an expedition to support a liberal Piedmont against a despotic Austria might not have been unpalatable to the Left Party in the Assembly, the expedition against the newly formed Roman Republic met with strong opposition from the outset. On the other hand, it was strongly supported by the Party of Order, as the Right called itself, and by Catholic feeling throughout France, which thus rallied to the support of the Prince-President.

The next medal obviously refers to the ill success of Oudinot's first attempt: 'Napoleon was War's genius, his nephew L. N. Peace's hireling. Genius is not hereditary so have the gods decided. March 30th 1849.' The date is that of the original credit for the expedition.

On one of the medals produced by the Catholic Party we have Colonel Niel on his knees before the Pontiff at Gaeta offering him the key of Rome. Pio Nono replies: 'My son, you have given me the means to enter, now let Oudinot send me the means to stay.' I need hardly remind you that the French garrison stayed in Rome until the war of 1870.

There is an interesting piece which may be cited as an example of the type of daily record to which I referred in the beginning of this paper. The incident is an interesting one, although one which during most periods would hardly be thought worthy of a medal. It reads: '27th December 1848. Eight days after his installation L. N. Bonaparte demands the delivery of the papers relating to the Strasbourg and Boulogne affairs from the Minister of the Interior, Monsieur de Maleville, who refuses them and resigns.' The historical importance of this episode is in its being the first sign given by the Prince-President that he intended to establish a personal rule, and that a conflict was inevitable between a President elected by universal suffrage and a popularly elected Chamber.

Returning to the expedition to Rome, there is an interesting cartoon in pewter, dated April 1849. It reads as follows: 'In fleeing from Rome, Pius IX lost his slipper. It has just been found in a rubbish-heap in the rue de Poitiers by a well-known rag-picker who has sent it to the Élysée. A canard do you say? No, it is a fact, and our soldiers are ordered to go to Rome and deposit it at the feet of the Holy Father and bring back his blessing.'

The Rue de Poitiers stands for the conservative Party of Order

which had its head-quarters there, and the rag-picker depicted suggests Thiers, who although not in office at the time was frequently consulted by Louis Napoleon during the early days of his Presidency.

There are others dealing with the same episode, for instance, 'Pius IX at Gaeta. Rome rejects him, France the eldest daughter of the Church, restores him.' And one sympathizing with the Italian movement: 'Rome, Florence, and you, Venice, your republics are over. Bow your head under the yoke of your despots, thus has the Holy Alliance decided. Shame. Our fleet is in full sail for Cività Vecchia and our armed soldiers are about to assist at the funeral of Italian independence, and at a restoration. April 16. 1849.'

The feeling of the Left was bitter, as we have seen from the medals, and was responsible for the last trial of strength on the old lines of revolutions in France. On the 11th of June, as we see on another piece, Ledru-Rollin formally accuses Louis Napoleon and his ministers on the subject of the war against Rome, on the 12th the majority acquits Napoleon and his ministers and votes against the Mountain.

The next day the Left Wing papers printed a manifesto outlawing the President of the Republic and his ministers and calling on the Garde Nationale to rise and defend the Constitution. A poorly organized demonstration was dispersed by regular troops. A few barricades appeared only to be quickly demolished. Ledru-Rollin escaped, and the movement collapsed.

Here is the medallist's account: 'On the 13th a Socialist manifestation against the vote of the majority repulsed by armed force. On the 14th state of siege proclaimed, suspension of the democratic press, arrests, prosecution of the chiefs of the Mountain all for the glory of God and . . . of order.'

From thenceforth repression was the order of the day, and the struggle now developed between the President and the Republicans rather than between the Party of Order and the Socialists. With the repression our daily medal ceased to appear. Such as exist are mostly strongly anti-Socialist, the Mountain is no longer represented, and impartial record ceases. The question of the re-election of the President now came to the fore, and it was seen that the issue lay between a reform of the Constitution in Napoleon's favour or his retirement, and a *coup d'état* began to loom ominously.

Some engraver celebrated the last effort of the Socialist party, if I may so translate the term *Sociale*: 'Day of shoe-leather. The fifth collapse of the socialist party, dispersal of the Mountain June 13.

1849', and on the reverse a five-pointed star each point of which bears the date of a defeat of the Left.

We have the 16th of April, when, as we have seen, the procession of workers to the Hôtel de Ville met with a hostile reception in the street from the people of Paris; the 15th of May, when the Assembly was invaded and the leaders of the mob ultimately arrested; the 24th of June, when the great rising collapsed; and the 13th of June 1849, when the projected rising against the Government over the expedition to Rome failed. These have all been mentioned already, and there is another referring to the events of the 29th of January 1849. At this time there was some unrest owing to the disbanding of the Garde Mobile. Changarnier, the military commandant of Paris, arrested the ringleaders of the malcontents, and next day, the 29th of January, he surrounded the Assembly with troops, much as the Jacobins had done in 1793 when they brought about the fall of the Girondins. Under pressure the Assembly renounced most of the long programme which they had undertaken, voted the budget and resigned, thus favouring the plans of Louis Napoleon and his military supporters and bringing the semi-dictatorship of 1851 a step nearer.

It seemed hard for many people to believe that the men who had so successfully defended them from the red menace of 1848 could no longer be counted as a strong enough defence against a threat from above. Changarnier had made a speech against Caesarism in which he stated that not a battalion or a company could ever be brought against the Assembly and ended by saying 'Mandataires de la France, délibérez en paix'. He had also forbidden troops to shout 'Vive Napoléon'.

Another medal reveals the hopes of the Republican Party, so soon to be dashed to the ground—Cavaignac, the hero of June, his right-hand man Commander of the National Guard, Lamoricière, and Changarnier, with the legend: 'The men who have defended society in the time of danger will defend it again and secure the victory of law.' It was now a race between a Bourbon and a Napoleonic restoration, and the *coup d'état* came as a matter of course. There was some secrecy about its date, little or none about the certainty of its execution. The pieces dealing with the *coup d'état* show nothing of the slaughter on the Boulevards or the wholesale arrest of the Opposition. We have the Bourbon and the Republican departing *à la grande vitesse*—and Louis Napoleon, the saviour of the country.

This date marks the real end of the second Republic. Approved by a vote of 7,000,000 to 600,000, the transition of Louis Napoleon's

position to that of Emperor was managed without difficulty, but in essentials the Republic came to an end with the *coup d'état*, and with it I propose to take my leave. The pieces I have described to you are but a small selection from the mass of existing material, but I hope that my claim has been made good when I stated that for numismatic documentation no period in the whole of history can approach the shortlived but ever memorable Second French Republic.

MODERN ENGLISH MEDALS

COLONEL M. H. GRANT

NUMISMATISTS, generally speaking, live in the dim past, leaving the recent past and present to take care of themselves. For that very reason it is as well that some one should take care of the later and current times, for the present soon becomes the past—indeed, within the earlier chronology of my subject has already become so to quite a dignified extent; and its crop of medallic works, already divisible into many well-marked epochal manners, is heavy enough to give enormous trouble to any reaper whose job it is to gather it up. It has always been so when neglected ages have thrown their unco-ordinated accumulations, of whatever nature, at the head of a single age, and often of a single worried individual of that age. What an infinity of labour, of doubt, of discussion would have been saved, if throughout the centuries there had existed some sort of perennial clearing-house of knowledge, whether artistic or historical, wherein all passing phases should have been recorded and codified. How grateful the connoisseurs and historians of to-day would be for the resulting consecutive narrative of, say, the primitive painters, the classical sculptors, and, in numismatics, the moneyers and medallists of Greece, of Rome, and of our own medieval times. *Haud ignota loquor*; it was recently my own task to disinter from beneath the rubbish-heap some hundreds of buried painters of our land, with what groping any similar excavator will readily conceive, but—and here is a point very germane to my subject to-day—with the gratifying result of the recovery of many a genuine gem for British Art. Well, that task I have attempted also in the case of the last century and three-quarters of British medals, once more with historical and artistic reward which to myself, at any rate, seems to render any *apologia* really superfluous. But I remember how utterly unfashionable recent fashions, even good ones, always are, and I must stick to my excuses.

Perhaps I must even increase them, for I am compelled by the magnitude of my subject and the little time at my disposal to add to their dullness by rendering my remarks largely statistical. How many British medals and medallists have there been, then, and of what quality since the end of the year 1760, which is my starting-point, down to this year of grace 1936, 175 years precisely? And adding these to the pre-1761 numbers already known, what is the total number of British medals and medallists in existence to-day? I have for years put that question to every expert I could encounter

with the most surprisingly divergent replies. The minimum of their estimates has been 20,000, the maximum 50,000, ignoring those, not a few, who only responded in silence with the mystic sign of infinity.

I should first of all, perhaps, explain why it is that I take the year 1761 as my jumping-off place. It is, of course, because 1760 is the year of the termination of the Bible of British medallists, the magnificent folio, compiled by the British Museum, entitled *Medallic Illustrations of the History of Gt. Britain and Ireland*, assuredly the most perfect work for its purpose ever issued on any subject.

That volume, I say, is the Bible of British medallists. But unfortunately it is only the Old Testament; it is as if our Medallic Scriptures ended suddenly at the Book of Malachi. The new *Diatheke* which begins with the reign of George III is only to be found scattered amongst books—foremost amongst them the invaluable volumes of Mr. Leonard Forrer, sen.—in the catalogues and cabinets of dealers, in auctioneers' lots, in collections public and private, on street-stalls and in rag-shops, its mass of material lying dispersed and inchoate like seaweed on the ocean of knowledge.

Here, then, are some figures which have not been arrived at lightly, and which will help at any rate to co-ordinate these *disjecta* of six generations. Since 1760 I have actually counted from all sources, and made a list of, an indisputable 6,766 British medals. Now the British Museum volume illustrates prior to 1761, 2,302, describes 90 more, and omits, usually for good reasons, 283, its total being thus 2,675. Add this to my own post-1760 computation, and we get 9,441 as the total of British medals in existence. But you will not be satisfied with my computation. I am not satisfied with it myself as signifying finality. Let us add to it 10 per cent. for error. We get then 10,385 as the complete medallic total. Add if you like, though I demur somewhat, add 20 per cent. for error. The result is 11,329. Nay, add 25 per cent. for error on my part, which humbly but honestly I think inconceivable, and the grand total becomes 11,800 medals. At any rate the result will no doubt surprise many by its smallness, as it surprised myself. There cannot possibly be more British medals than this, there are probably considerably less; in other words, a man by taking thought could easily—no, not easily, because of the rarity of many, but certainly—collect them all.

Coming back to purely post-1760 medals they therefore range from my count of 6,766 to an extreme error-amended 8,456, exactitude lying somewhere betwixt and between, say 7,600. And how are these distributed amongst the makers of them? Again I have actually *counted* and listed 825 post-1760 medallists. Any percentage

of error here will certainly be less than in the case of actual medals. There cannot be many more medallists than this from 1761 to 1936. Suspicion may be aroused that I have included in my counts only considerable medals and medallists. I assure you that is not so. I have looked on *nothing* as common or unclean, taking indeed special care to disinter such medallic junk as Dog Show, Horse Show, School, Sporting, Athletic, Agricultural Medals, even Counters, disregarding, in fact, absolutely nothing medallic so long as it was actually a medal. I should perhaps mention that, of course, I have included medallions, whether struck or cast, in my count. Only one exclusion have I made, namely, the huge class of Trade Tokens, a species thoroughly recognized as extra-medallic, and carefully codified as such by their historians. If as much attention had been paid to medals as to tokens, there would be nothing left for me to say to you to-day.

I may here refer to the additional scope since 1760 available to the specialist collector, the man who indulges his hobby with but a single subject. The amasser of naval and shipping medals, for instance, will find about 300 more of his type, a rather unexpectedly small total; its diapason closing on a fine Queen Mary at the Royal Academy this year; the military medallist will acquire at least 75 more than this. Doctors' medals number some 135, their fellow huntsmen, the clergymen, rather more, about 145, the latest the two fine medals struck by the Papal medallist, Mistruzzi, on the canonization of More and Fisher last year. Of statesmen there are some 336 medals, of scientists about 140, of authors very nearly the same, whilst musicians, actors, engineers, architects, artists, and sculptors have each a good showing, the last three owing much to the really admirable series issued by the Art Union between 1843 and 1884. Of architecture there are nearly 250 medals, including a picturesque array of churches. That important body of citizens, the numismatists, more shame to them, are poorly represented. Of them I can discover, *qua* medallists, no more than 12, and 3 of these are of the same individual, Thomas Snelling.

An amusing collection might be made of the medals of *Women*. These, heavily weighted by Queen Victoria, as were earlier eras by Queen Anne and Queen Mary II, number about 440. Add these to the female medals of the periods preceding ours, 430 in number, and you would acquire a very respectable cabinet of nearly always very respectable ladies. If our research is for medals done *by* women, essentially a post-1760 feature, there will be just about 350 medals, the contribution of 50 medallists, to be acquired; some of the artists are of the highest merit, and some, such as Lady Harris, Lilian Hamilton, and Lady Gleichen, are prolific as well.

Royalties, of course, are largely represented in our period as in all others, totalling some 1,075, the latest being the, for the most part, abortions issued on the occasion of the Jubilee of our much-lamented Sovereign, King George V. George III has about 165 medals; George IV 140, his brief reign being medallically extended by his long regency; William IV only some 58; Queen Victoria about 265; Edward VII about 140. I speak, of course, only of medals bearing their effigies, and from their youth up. If you collect Nationalities, Scotland will provide you with some 420 medals, Ireland with 350, India some 95, America (remember I am speaking of post-1760) about 45, Australia and Canada about 45 each, dear old London with 250 or so.

Now, having approximated, for I claim no more, to the *quantity* of our post-1760 medals, what, first, is their *quality*, secondly, their historical interest? As to the quality it is, of course, impossible to be definitive. There are good and bad medallists since, as there were before, 1760. If there be nobody quite so good as Simon or Briot, there are some who run these fine craftsmen very close; on the other hand, there are hardly any who emulate the atrocity of, say, the Pinchbeck-Vernon series, or the almost Byzantine ugliness of the Carolean and Queen Anne counter-strikers. The general level, indeed, will be found to be considerably higher than theretofore, owing to improved technical methods and to the employment of more notable hands, in many cases famous artists and sculptors, on the designing and execution of the work. If it were possible to draw a general curve or graph of post-1760 medallic design, it would drop quite suddenly from the continental grandioseness of the early Georgian and previous epochs, into the minute tightness introduced by the Pingos; thence to the equally tight but more extensive flatness of George IV and William IV and early Victorian (relieved by the artistry of such fine hands as Küchler, Webb, and the elder Mossop), on through the masterly but chilly accuracy of the Wyons, and thence slowly back to truer art and high art, induced by the surprising late nineteenth- and twentieth-century appreciation of the personal portrait and its intimate characterization, an insistence, that is, on the search for and revelation of character rather than on neatness or diminutive statuary which was the chief aim of most medallists from 1760 to, say, 1880. A too prevalent use of the process of electrotypy marks a declension in our most recent practice in medallurgy. It is almost hopeless and wholly invidious to select names from so many, but in the earlier days of our period we have the uninspired but elegant series of the three Pingos; of Kirk,

master of medalets; of Hancock, Küchler, the elder Mossop of Dublin, Faulkner, Milton, and the younger Tassie. Of William Tassie it is interesting to discover that it was he, not his uncle, James, who was responsible for a fine and little-known series of seven medals of the early sovereigns of Scotland, for it was he who exhibited casts of the same at the Royal Academy in 1799. Their quality gives William Tassie a much higher place in the ranks of our medallists than has been accorded him.

In the early nineteenth century we have as leaders Halliday, Mills, Webb, Stothard, the younger Mossop, Pidgeon, Bain, Binfield, Parkes, Avern; in Victorian times the wonderful but too sealed-pattern output of the thirteen Wyons, the Kirkwoods of Edinburgh, the Pinches family, of G. G. Adams, nearly a Master, and of W. J. Taylor, at least once a Master with his Brunel. In this and the Edwardian epochs a new or rejuvenated feature is noticeable, namely, the often original and first-class handling shown by many, including women, who strove, sometimes too self-consciously, to revive the Renaissance gusto, freehand and fearless casting—modern Fiorentinos and Sangallos, and often their equals. A pioneer in this was T. Woolner. And to-day we have with us the Master who follows my humble self on the list of speakers, Mr. T. Spicer-Simson. So much for Britons *pur sang*. But as was the case prior to 1761, many talented foreigners worked on British medals; not so many as before, however, for by the second half of the eighteenth century British medallic art had found and secured itself. Still, there were many foreigners, chiefly French (whose post-1760 contributions number some 150), such as those who worked for Durand on his skilful series of British notables; Galle and Dupré with their fine and strong portraits; Barre, whose Shakespeare has set a type; Droz, whose portrait of Lord Heathfield is by far the best of that much-medalled hero; and that obscure man of a single masterpiece, G. D. Gaab, whose tremendous Christopher Wren and St. Paul's, as fine a bit of work as exists in all the British series, must now be ravished from the B.M. volume, where it is allocated to 1723, and placed well within *our* period, since the medallist himself exhibited it at the Free Society in 1783. Then there is the accomplished team of renegade Frenchmen who engraved for James Mudie one of the best historical series ever issued, the Peninsula series of 1820, properly numbering, I find, not 40 medals as invariably encased, but 44, owing to 2 additions and 2 replacements. Then of course, there is the great but overrated Pistrucci, who worked long in England, but never in English. Finally, for there is no time to mention more, we have the masterpieces of

David d'Angers, and later, of Alphonse Legros and of Édouard Lantéri, all great in English portraiture.

This brings us to a consideration of the historical aspect and value of the mass of medals within our period. I do not think that the most case-hardened antiquarian would contend that there were any events *prior* to 1761 more important or interesting to Britain than, say, the American War of Independence, the Napoleonic Wars, the Crimean War, the Mutiny, the Union with Ireland, the Reform Bill, the Abolition of Slavery, the Catholic Emancipation, the Great War, to say nothing of six coronations, all copiously medalled with all the heroes of the same. The intense Total Abstinence Campaign of Father Matthew is itself responsible for scores of medals in the 1830's and the 1840's. Every actor in policy, in scandal, in social and public events, in art and science, every individual who performed anything notable, and many who did nothing of the kind, received his or her medal; and from them much may be learned. As one instance out of many, who can doubt of Queen Caroline's still fiercely debated liaison with Count Bergami, which almost split the realm, when we find her striking her effigy and his on the same medal, and by the hand not of an enemy but of her most sympathetic medallist, Peter Kempson? But there is practically no public event, important or unimportant, which was not commemorated by a medal between 1761 and this very year 1936; and as for the private events—largely ignored by the medallists prior to our period—the coming-of-age of this peer, the death of that, the marriage or vice-royalty of another, *plus* the thousand and one occurrences to non-noble and ignoble individuals, their record in medals is abundant, and each medal is a social document which will one day throw a light—Carlyle's 'little row of naphtha lamps'—on the obscurer corners of our existence on this earth. As before 1761, so after, these medals are *history*, history public and private, and in fulfilling this they are fulfilling their purest mission. Art is all very well, and highly acceptable where exhibited. But I maintain that art is not the prime mission of a medal, whilst history is. It is sufficient that a medal records the event or personage which it commemorates. Even a vilely bad medal may be as valuable as the most artistic, inasmuch as it may be the only record of a personage or event whose perpetuation is a contribution to the reconstruction of the past. But, as I have said, the medals within our period fall scarcely, if at all, short of the artistic level of the eras preceding them, in *general* excellence far exceeding that level, whilst in historical interest they yield to those of no period in our history.

THE ARTIST IN HIS RELATION TO COINS AND MEDALS

T. SPICER-SIMSON

AT one time or another it must have flashed across the minds of most of my audience that the Plastic Arts are so essentially concerned with vision, and consequently their full appreciation is so much an education of the eye through continual observation and comparison, that talking about any branch of these arts without examples at which to look must be of but small advantage.

However, a talk should be some help if it directs sufficient attention to certain factors and qualities of works of art—in this case coins and medals—which may aid those who wish to make the comparisons themselves or desire to develop their taste or their powers of observation. Only in this way can listening to lectures or reading criticisms be of any advantage.

This, then, is my excuse for the writing of this article. I have studied coins and medals most of my life and have produced over two hundred. In itself this does not necessarily qualify me to speak of anything but the technique, yet, as it happens, the particularities producing harmonies through space-divisions and arrangement, that is, the composition, have always intrigued me, as well as portraits and the practical qualities which must exist between the handling of the material and the material itself.

The few words that follow will therefore not be on the historical or economic value of coins and medals, as I have given very little time to the study of this aspect of the subject.

Visually the shape of a coin or medal is very important, for no form attracts the sight so strongly to itself as the circle. The eye is held within that shape, for the outline has no angle to draw the attention away from the centre. This is all to the advantage of the subject depicted therein, but the form that can rotate like a wheel has no natural position or angle from which it can be examined, unless the design possesses a real feeling of gravity.

This attribute should be obtained by the artist through the lines and space-divisions of the composition to give it counterpoise and a static quality.

We may discover what it is that corrects any feeling of instability by studying the magnificent medals by Pisanello. Several precepts of design can be formulated from the examination of his work. This

stability or strength of purpose is usually acquired by the use of two parallel lines counter to the outline or frame, i.e. the border. The lines are sometimes continuous, but as a rule they are sensed in the same way as we observe the relation of the stars to one another to form what we call the Great Bear or Orion's Belt. Life is action and change; yet if we wish to adapt any living thing to a coin or medal and we feel the necessity for balance, spacing, or pattern, we are forced to interpret our subject and to consider that any modification must be in harmony with the material of which it is made. To be a work of art a medal depends on this equation, for line and planned proportion are much more important than concordance with measurements of nature, and a living effect can be given by decentralizing the subject depicted on a coin. Vision is an imperfect instrument, yet very few people seem to realize that certain characteristics in paintings, sculpture, coins, and medals can be explained by differences that exist in the structure of the eye in different people. For instance, Frank Brangwyn's paintings or Corot's landscapes, so essentially different from each other, would appear satisfactory to short-sighted persons. These works interpret the effects of nature by variety of tone-values without detail. They would be unlikely, however, to satisfy or please far-sighted individuals who see detail in the distance, or men with scientific training who study small objects with a microscope. Their praise for truth of representation would go more likely to an Audubon or a Bruegel. Consequently, what seems true to one group would seem untrue to another group of equally educated persons. This may explain why truth is always represented naked, so that everybody can clothe her to suit their own taste.

In the plastic arts of the same category and of different nations dissimilarities exist that are racial and can be traced to the physical conformation of the eye. This has been pointed out by Mr. C. D. Hasmussen. The diversity of treatment existing between landscapes painted by Europeans and the Chinese can be explained by the fact that the educated Oriental has been short-sighted for centuries—the detail of their pictures shown in the foreground is definite and vague in the background.

Almost all their painters came from the intellectual class and were literateurs and poets as well. The pictorial and complicated signs of their written language must have helped to increase this myopia, for all preferment in the old days was acquired by memorizing their literature.

The Greeks apprehended that sight was imperfect, for, as we all know, the columns of their marvellous temples were given a convex form to appear straight to the eye.

The details are simplified in Hellenic sculpture; their finest coins are in rather high relief, so we may conclude from these facts that the greater number of the inhabitants were long-sighted, for low relief would make the striking of the coins easier and be perfectly satisfactory to a short-sighted race.

All great works of art are well composed and possess a general effect, however much the details are carried out, and this explains why the works of geniuses, such men as Van Eyck or Bruegel, are so superior to paintings of even an extraordinary technician like Meissonier. This quality or character combined with originality in design and fine draughtsmanship is typical of many of the Greek coins of the fifth century B.C. and certain medals of the Renaissance.

All living things possess a distinct personality. Even inanimate objects have essential characteristics that are rarely discerned immediately by the eye, such as density, elasticity, hardness, and softness.

If by the use of such innate qualities the artist may express better the idea he wishes to convey, then he must interpret them in such a way that we may recognize them, although they are depicted in a different material. This succeeds in giving character to his work. Let us take a concrete example—to discover what is the essential nature of some material—a piece of cloth, for instance. Its external aspect may be rough or smooth, but at some distance can we say whether we are examining linen, silk, or sacking? How do we distinguish substance without direct contact?

Colour or the surface-texture may not help us at all, for they are common to all objects, but the drapery falls characteristically, and whatever the material it will be revealed by the shape of the folds. The subject, too, may be depicted at any scale without loss of intelligibility. Scale is used here to mean proportions that make the subjects clear, adjusting them to the necessities of the space and design without attempting to show their actual relative sizes.

In this way a deeper truth of representation is attained than by slavishly attempting to put down all we see without modification. Nature turns a blank face to those who hold a mirror up to her, even if the object is a human face!

A portrait is only the shade of one being transmuted through the soul of another, the artist. This can be proved, for a portrait is always judged by the emotional relationship of the onlooker to the person portrayed. To-day the psychologists have taught us that man is affected by mass-arrangement and colour; therefore the spiritual character of persons can be represented before a single feature takes

a definite form. This is perhaps the slight contribution I have made to the art of medallic portraiture.

It hardly seems necessary to point out that an energetic, forcible character like H. G. Wells should not be presented on a medal of the same relief as the decorative, conservative George Meredith. The position, movement, and proportion of the head to the circle, the classical or more elaborate lettering of the name or inscription, and the importance given to them—all will unconsciously fashion the sensitive observer's opinion of the character of the person portrayed.

That is where mechanical instruments fail entirely, although machines are being used in the reproduction of functional works of art successfully and will gradually supplant the artisan entirely. The reducing machine nowadays takes the place of the die-cutter, whose art is practically lost, and sculptors who have not studied what would be relevant as subjects, or the scale and design suitable for these diminutive circular reliefs, feel themselves competent to carry out orders for coins and medals since the machine is capable of reducing accurately the largest reliefs to almost vanishing-point.

Cutting the matrix directly by hand in the steel or bronze almost obliged the artisan to interpret all forms in a simplified manner because of its small size; therefore he was less likely to fall into errors of scale or excessive detail. It discouraged him from attempting to seize anything but the principal or characteristic forms. The work will also bear the mark of the tool. All struck coins before the year 1839 and cast medals up to to-day convey a sense of their method of growth and the material in which they consist. These are qualities to be found in all great works of the plastic arts.

Technique or handling is a vital means of disclosing the character and emotions of the creator of the work, and this explains how it is that most of us do not respond emotionally to machine-made 'art' objects, although we may greatly admire manufactured articles that are functionally perfect, for they have beauty of line and proportion. Hence it follows logically that the greater the number of processes interposed between the artist and his finished work, the less expressive will be the result as a human document. Consequently the handcut die for a coin or medal in wax or one cut in relief of the same size as the finished work will give the finest artistic results.

The most satisfactory method of showing medals and coins is in cases on tables if the light is from above, or hanging on walls opposite side-windows. The most effective photographs, too, result from bearing this in mind.

After focusing the coin, place an electric bulb against the tube of the lens and follow the play of the illumination on the coin through the screen, without permitting any light, of course, to enter the lens. Have the bulb halted at the moment the modelling of the coin appears most effective. If the sheen of the metal is very strong, decrease the contrast of light and shade by weakening the illumination, and consequently give a longer exposure to the plate or film.

The modelling and relief of bronze are thrown up more by tone-values than by shadows for two reasons—the sheen on the surface and the darkness of the metal. Therefore the light rays should strike the metal at the same angle of incidence as they enter the eye, instead of by the usual lighting from the side.

THE MEDALLIC WORK OF IVO KERDIC

IVO UZORINAC

(*Plates XXVI–XXVII*)

THE object of my paper is to give a short description of the voluminous medallic work of the Croatian artist Ivo Kerdic.

Before going on to the description of his works, I would ask your permission to allow me to say a few words about the conditions which have prevailed in Croatia in the cultural and especially the medallic field. I regret that I cannot speak of a tradition of the medallic art, for the difficult conditions under which the Croatians lived from the fifteenth century, pressed on all sides by enemies, principally the Turks, prevented the art developing to such an extent as it did in other progressive countries, especially in the neighbouring Italy, with which we were at the time connected by close cultural connexions. Many of our best artists, not being able to find a suitable basis for their working in Croatia, had to go to foreign countries, mostly to Italy, for learning and accomplishment, and made there excellent works, which, however, were known everywhere as works of Italian art. Only a few of our artists were known to originate from Croatia, as they were called only by their Christian names or places of origin, and not by their surnames. In most cases they were known as 'Schiavone', which means Croat.

The medallic art, which developed in Italy in the fifteenth century, by the merit of the great Pisanello, to a ripe fullness, could not develop in our country for the reasons stated above, and thus until the end of the nineteenth century there were no medallists working in Croatia. It should, however, be pointed out that some of our medallists were working outside Croatia; thus in the middle of the fifteenth century Paulus de Ragusio and Francesco da Laurana both were working in Italy, and in the eighteenth century two Slovenes, Franz Andreas Schega and his nephew Bernard Hribernik Berger. Apart from the above mentioned, as far as there was any demand for medals in Croatia, they were made by foreign artists, in the nineteenth century chiefly by Austrians, who had the fine tradition of the old, good school of Vienna.

Only at the beginning of the twentieth century do the first works of a national medallic art appear. Some of our sculptors began to make medals and plaquettes; such were Ivan Mestrovic, Robert

Franges Mihanovic, and Rudolf Valdec, who were soon joined by Ivo Kerdic. Whereas other artists only occasionally made medals and plaquettes, Kerdic devoted himself almost exclusively to plastic work on a small scale, especially medals.

The life of Ivo Kerdic has been as adventurous as that of all real artists. Born in the year 1881 in a little Croatian village, Davor, near the Bosnian border, he showed even as a little child a vivid interest in modelling and architecture (of course in miniature), and following the advice of a wood merchant, his father enrolled young Kerdic in the School for Artisans in Zagreb, in which he was trained as a locksmith. In 1900 a World Exhibition was held in Paris, and Kerdic was sent to Paris as one of the best pupils to do some final work on the Croatian Department of the Exhibition, and remained there. Working in various factories as an ordinary worker, he obtained by chance a place in a carver's workshop, being accidentally taken for an engraver instead of a locksmith. Working in this workshop Kerdic had for the first time the opportunity of seeing the works of the French artist-medallists, and on Sundays he used to visit museums, enjoying the exhibitions of medals and plaquettes, and not knowing that he himself would one day do the same work. The impressions which Kerdic gathered in Paris influenced him for a long time and are evident in his early works.

He left Paris on account of his father's death and after remaining for a while at home, he proceeded to Vienna, but not finding employment, he went on wandering, as was customary before the War, and passed, more usually on foot than by rail, through Austria, Bavaria, and Switzerland with the intention of going back to Paris. However, he changed his mind and returned to Vienna, and this decision of his was of great importance for all his future life. He found employment in the Gillar Bronze Foundry for some time, working through all stages of the workshop, and had soon a chance to make in bronze a large figure, 'Fortuna', the eagles for the King's Palace, and other works, thus gaining good practice. Professor Rudolf Mayer recommended him to the medallist Professor Rudolf Schwartz, who made it possible for the artist to join the Kunstgewerbeschule as an external student, where he studied for two years. He passed the preliminary examination of the Academy of Applied Arts and entered into the special school for engraving and medallic work conducted by Professor Rudolf Marschall. Having finished at this school he remained for two years in the studio of Professor Marschall as his assistant.

On leaving this special engraving school he was awarded a gold

medal for composition. His first real success was at the International Exhibition at Brussels in 1912, where he exhibited some medals and plaquettes.

In 1913 he was appointed Professor of the Academy of Arts in Zagreb, where he is still working.

By passing through the Paris factories and the Vienna carvers' and engravers' ateliers, as well as the schools, the artist gained solid practical experience and the necessary theoretical knowledge, which later on was of great use to him.

Since 1908 there has been a steady output of his work, both medals and plaquettes. His medallic work cannot be characterized by division into periods, although some critics have thought that his activity could be divided into three main periods: before the World War, during the War, and after the War. In our opinion a better division would be according to the influences which are expressed in his works. In the beginning he was more or less under the influence of the French artists and their tender, picturesque, fine works, and under that of Slav national symbolism. In his first works, such as 'Sunrise', 'Weaver' (Pl. XXVI, 2), 'Croatian Dance at Vienna', and portraits 'Vera' and 'Neda', and in some other works, the influence of the French artist Roty is evident, who, it seems, has influenced our artist to a great extent. But even in these works the artist is original, and brings characteristic motives and scenes of the national peasant life, which is very near to him as he arose out of these surroundings. He has reproduced the soul of the nation in a plastic expression, which, however, he omitted in his later works for reason of a pure sculptural perception.

The French influence soon vanished in his works and gave place to Slav national symbolism, which is shown in a characteristic manner in such works as the medal 'Croatian Sokol—Falcon', 'Plaquette presented by the City of Zagreb', 'The Celebration of the 50th Anniversary of the Narodny Divadlo (National Theatre) at Prague', and other works. These medals were partly made under the influence of the Czechoslovak sculptors Sucharda and Miselbeck.

With these works the period of foreign influences (i.e. the French pictorial description and the Slav national symbolism) is finished, and liberated from all these influences, the artist begins to create works of a perfectly simple form, wishing thus to emphasize pure plastic, i.e. sculptural form, while expressing his personal note. In the works of his first period the picturesque way of solving the problem of the medal appears, whereas in the second period pure sculptural expression prevails.

Coming out of an engraving and medallic school, and out of an engraver's workshop, the artist quite naturally brought with him special understanding and qualities for the engraved medal.

The beginning of the artist's new perception is evident in the medal 'Liberation and Union of Jugoslavs' made in 1918/19 (Pl. XXVI, 1), which although not an engraved medal nevertheless shows the same qualities and characteristics, such as sharpness of figure, bold relief, and lettering. The medal shows on the obverse a young boy of Slav type, kneeling, breaking the chains of slavery. On the reverse three female figures appear representing the three nations which are at last united—the Slovenes, Croats, and Serbs. Although the lower part of the body of the young boy is organically not connected with the upper part, the total impression is not impaired, and the medal is still of representational significance.

The artist's changed perception is shown in the best way by the medal of the painter Petar Dobrovic (Pl. XXVI, 3), which is engraved, and which besides being a complete artistic conception also shows the artist as an excellent engraver. The exceptionally bold relief of the obverse as well as of the reverse gives the medal an unusual strength.

Similar are other medals, chiefly portraits of his later period, such as those of the painter Vilko Gecan, the novelist Ksaver Sandor Gjalski, Professor Hugo Erlich (Pl. XXVII, 3), the Americans William Chauncy Langdon, and Miss Swan (Pl. XXVII, 2), and the plaquettes of Stjepan Radic, Madame Malesevic, and Madame Vavra.

Particularly striking is the medal of the painter Vladimir Becic (Pl. XXVII, 1), which combines all the good qualities of the artist, such as clear engraving, with a sculptural element.

Lately the artist again has given special attention to cast medals and plaquettes and has made several; for example, I. Quiqueran, father and son, King Alexander I, the painter Vladimir Kirin, Dr. Cajkovac, a symbolic medal of the voluntary Theatrical Company, and the plaquette 'On the Street'.

If a general characterization of the works of the artist Ivo Kerdic is to be attempted it may be said that he tries to instil life into his medals, to reproduce in the portraits the psychical expression of the person portrayed, without a picturesque background. He brings into his works an individual note which to a certain extent distinguishes him from all other artists working in the medallic field, and his works have their own specific characteristics.

Of his medallic works competent criticisms have been written by Professor Dr. A. Loehr, Director of the Bundessammlung der

Medaillen, Münzen und Geldzeichen, who first discovered our artist, in the *Mitteilungen der Numismatischen Gesellschaft*, 1930, then by William Chauncy Langdon of N.Y. in the *Slavonic Review* and the French review *Aréthuse* (1929, p. 27), and Ivo Quiqueran, Keeper of the Landesmuseum in Graz, while several Czechoslovak and Polish reviews have given retrospective descriptions of his works.

His works are to be found in almost all museums; Vienna and Zagreb museums have the majority of his works, and he is well represented in some European and American museums.

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THE APHLASTON 1

THE APHLASTON 2

DUE RIPOSTIGLI

EINE VERSCHOLLENE BRONZEMÜNZE VON SYRAKUS

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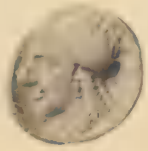

THE CHILIOMODI HOARD 1

THE CHILIOMODI HOARD 2

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EIN FUND VON SAMOTHRAKE

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IMPERIAL COINS EXHIBITED BY MR. A. M. WOODWARD

ROMAN COINS ILLUSTRATING GERMAN ANTIQUITIES

SAECVLVM NOVVM

LEGIONARY COINS OF GALLIENUS 1

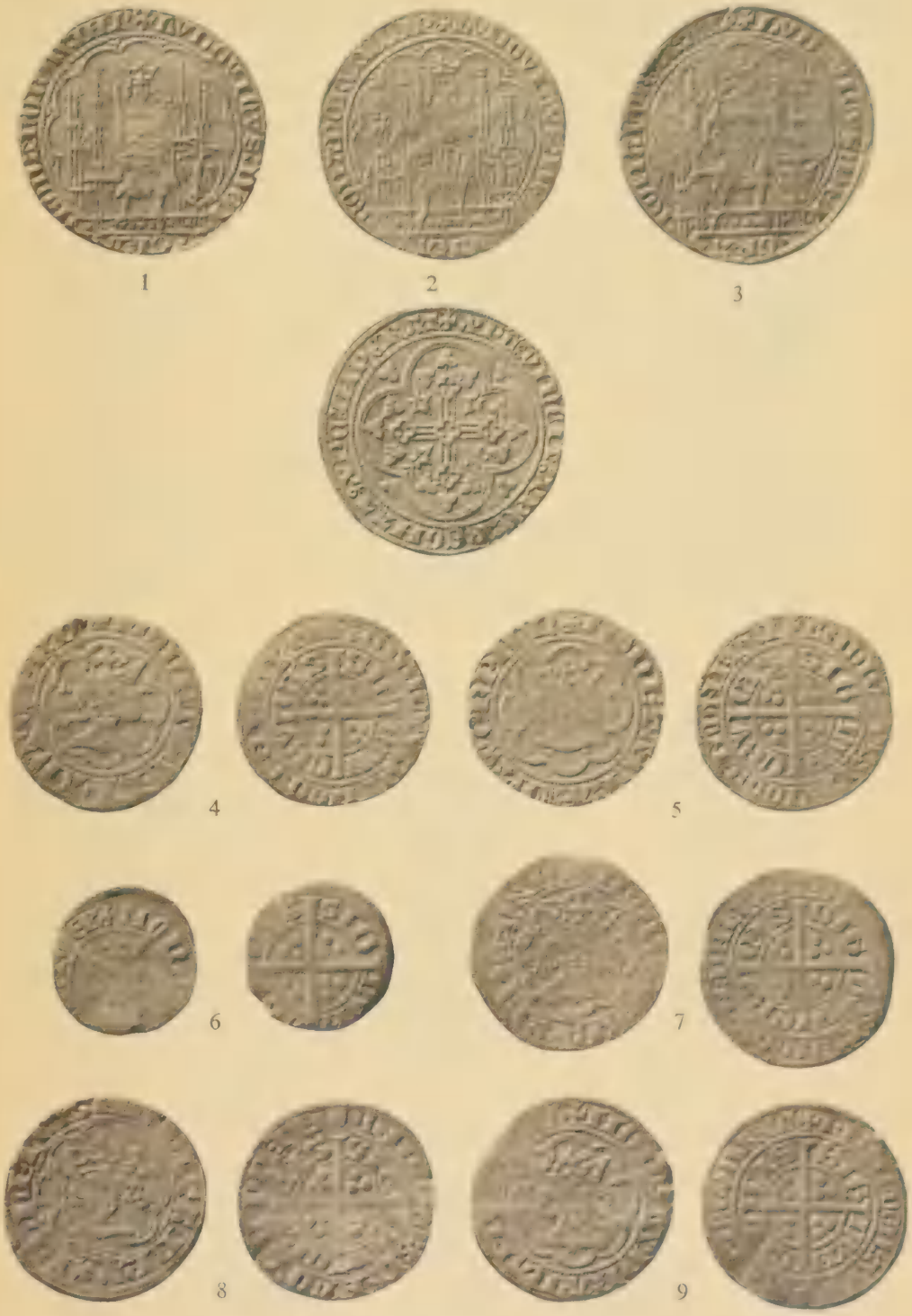
LEGIONARY COINS OF GALLIENUS 2

LEGIONARY COINS OF GALLIENUS 3

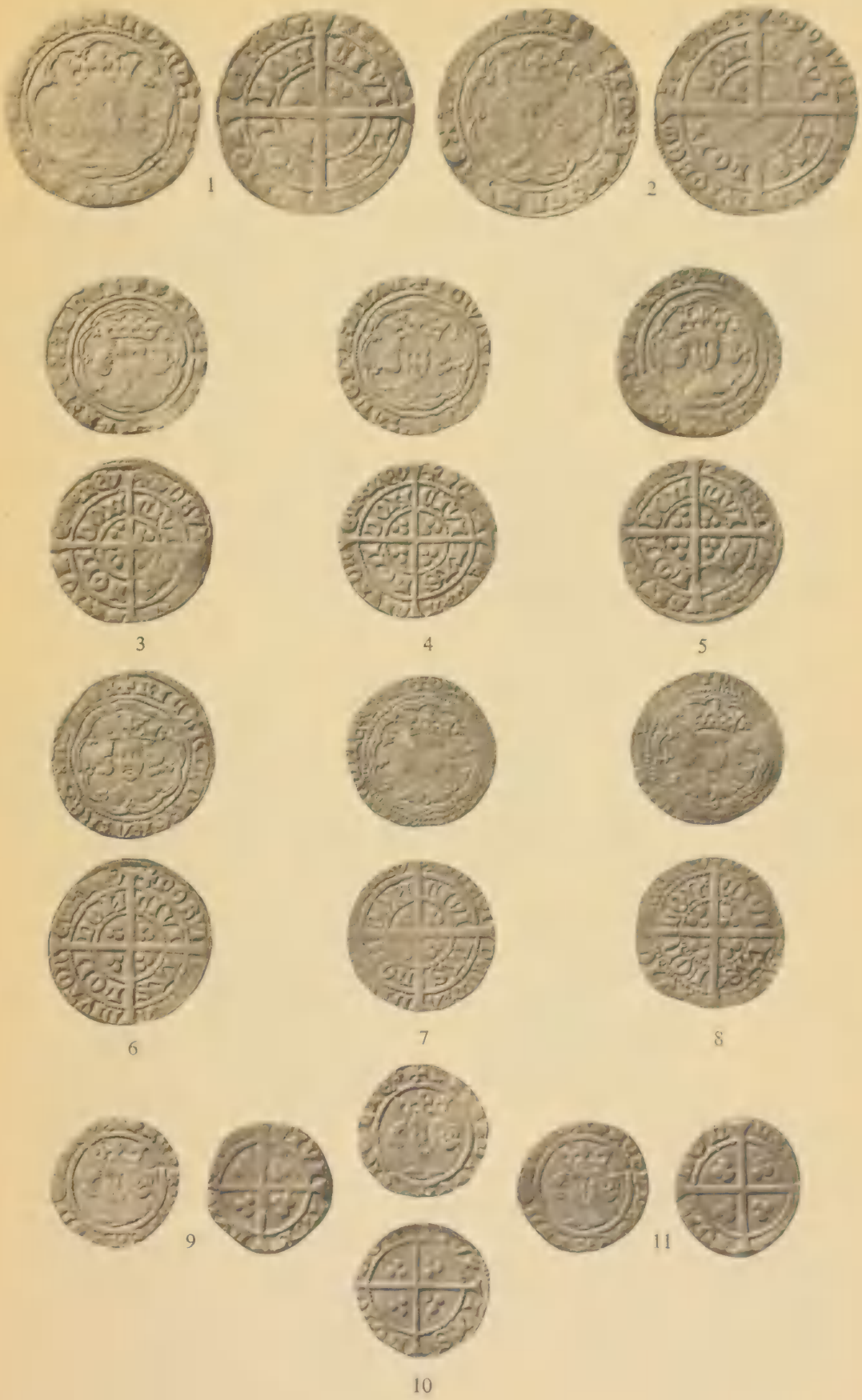
LEGIONARY COINAGE OF VICTORINUS

THE REIGN OF THEODOSIUS

LA CONCESSION À SAVARY DE MAULÉON



PRÉTENDU MONNAYAGE D'ÉDOUARD III EN BRABANT



HEAVY SILVER COINS OF HENRY IV

HISTORICAL BRITISH COINS

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MEDALS OF THE FRENCH REVOLUTION OF 1848

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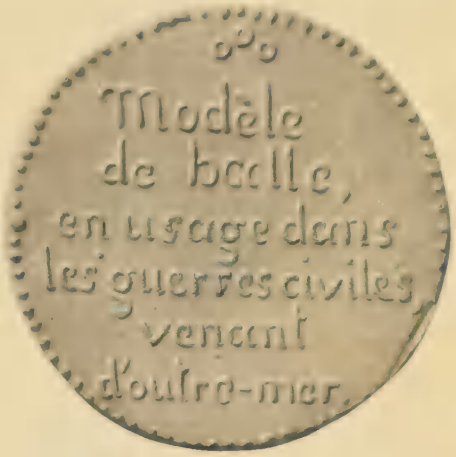

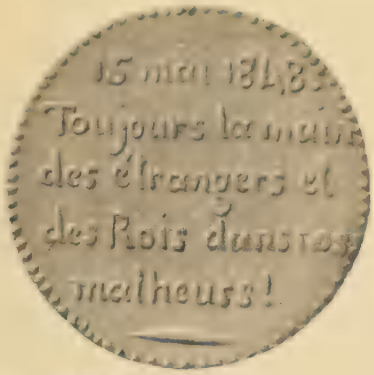

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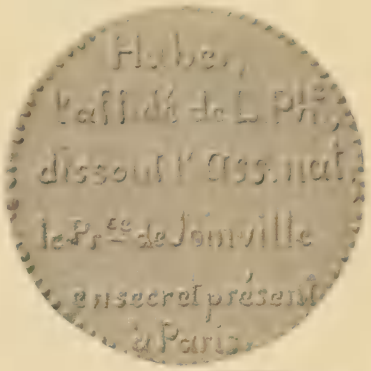

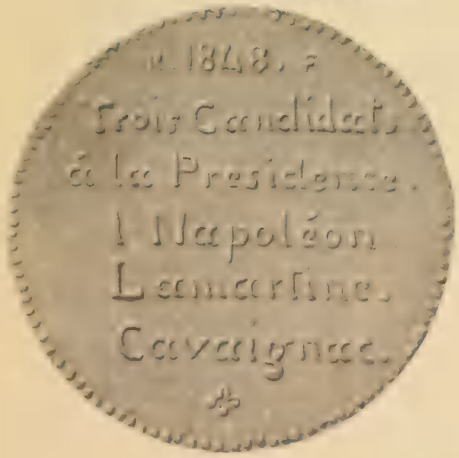

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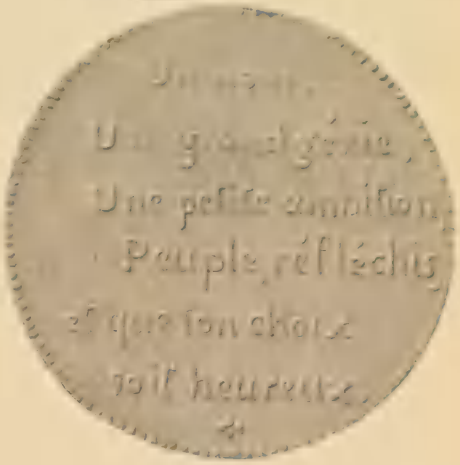

MEDALS OF THE FRENCH REVOLUTION OF 1848

MEDALS BY IVO KERDIC 1

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2

3

MEDALS BY IVO KERDIC 2

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PRINTED IN
GREAT BRITAIN
AT THE
UNIVERSITY PRESS
OXFORD
BY
JOHN JOHNSON
PRINTER
TO THE
UNIVERSITY

American Numismatic Society
3 8060 00016 1612